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North American Numbering Council (NANC)

Functional Requirements Specification

**Number Portability Administration Center (NPAC)
Service Management System (SMS)**

Release 3.4.8b

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Related Publications

NPAC SMS Interoperable Interface Specification (IIS), Version 3 4 6b February 14, 2014

NPAC SMS Interoperable Interface Specification (IIS), – Appendix A and B, *Errors and Message Flow Diagrams (EFD)*, Version 3 4 8b June 26, 2015

NPAC SMS XML Interface Specification (XIS), Version 1 6, August 1, 2014

Illinois Commerce Commission Number Portability Administration Center and Service Management System Request for Proposal (ICC NPAC/SMS RFP), February 6, 1996

Generic Requirements for SCP Application and GTT Function for Number Portability, ICC LNP Workshop SCP Generic Requirements Subcommittee

Generic Switching and Signaling Requirements for Number Portability, version 1 03, ICC LNP Workshop Switch Generic Requirements Subcommittee, September 4, 1996

Report on Local Number Portability, Industry Numbering Committee (INC)

FCC 96-286 First Report And Order, CC Docket No 95-116, July 2, 1996

CTIA Report on Wireless Portability Version 2, July 7, 1998

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Table of Contents

| | |
|---|------------|
| 0. PREFACE | 0-0 |
| 0.1 Document Structure | 0-0 |
| 0.2 Document Numbering Strategy | 0-1 |
| 0.3 Document Version History | 0-1 |
| 0 3 1 Release 1 0 | 0-1 |
| 0 3 2 Release 2 0 | 0-2 |
| 0 3 3 Release 3 0 | 0-2 |
| 0 3 4 Release 3 1 | 0-2 |
| 0 3 5 Release 3 2 | 0-2 |
| 0 3 6 Release 3 3 | 0-3 |
| 0 3 7 Release 3 3 4 | 0-3 |
| 0 3 8 Release 3 4 | 0-3 |
| 0.4 Abbreviations and Notations | 0-5 |
| 0.5 Document Language..... | 0-6 |
| 1. INTRODUCTION | 1-1 |
| 1.1 NPAC SMS Platform Overview | 1-1 |
| 1.2 NPAC SMS Functional Overview | 1-1 |
| 1 2 1 Provisioning Service Functionality | 1-1 |
| 1 2 2 Disconnect Service Functionality | 1-2 |
| 1 2 3 Repair Service Functionality | 1-2 |
| 1 2 4 Conflict Resolution Functionality | 1-2 |
| 1 2 5 Disaster Recovery and Backup Functionality | 1-2 |
| 1 2 6 Order Cancellation Functionality | 1-2 |
| 1 2 7 Audit Request Functionality | 1-3 |
| 1 2 8 Report Request Functionality | 1-3 |
| 1 2 9 Data Management Functionality | 1-3 |
| 1 2 9 1 NPAC Network Data | 1-3 |
| 1 2 9 2 Service Provider Data | 1-3 |
| 1 2 9 3 Subscription Version Data | 1-3 |
| 1 2 10 NPA-NXX Split Processing | 1-3 |
| 1 2 11 Business Days/Hours | 1-5 |
| 1 2 12 Timer Types | 1-7 |
| 1 2 13 Recovery Functionality | 1-8 |
| 1 2 13 1 Network Data Recovery | 1-8 |
| 1 2 13 2 Subscription Data Recovery | 1-9 |
| 1 2 13 3 Notification Recovery | 1-9 |
| 1 2 13 4 Service Provider Data Recovery | 1-9 |
| 1 2 14 Number Pooling Overview | 1-10 |
| 1 2 15 Time References in the NPAC SMS | 1-13 |
| 1 2 16 SV Type and Alternative SPID in the NPAC SMS | 1-15 |
| 1 2 17 Alternative End User Location and Alternative Billing ID in the NPAC SMS | 1-16 |

Table of Contents

| | | |
|------------|---|-------------|
| 1 2 18 | URIs in the NPAC SMS | 1-16 |
| 1 2 19 | Medium Timers for Simple Ports | 1-16 |
| 1 2 19 1 | Medium Timer Set | 1-16 |
| 1 2 19 2 | Medium Timer SV Attributes | 1-17 |
| 1 2 20 | Pseudo-LRN in the NPAC SMS | 1-19 |
| 1 2 20 1 | Pseudo-LRN Behavior | 1-19 |
| 1 2 20 2 | Operations with Pseudo-LRN Support Tunables | 1-20 |
| 1 2 21 | Service Provider requested Notification Suppression | 1-21 |
| 1.3 | Background | 1-21 |
| 1.4 | Objective | 1-24 |
| 1.5 | Assumptions | 1-24 |
| 1.6 | Constraints | 1-25 |
| 2. | BUSINESS PROCESS FLOWS | 2-1 |
| 2.1 | Provision Service Process | 2-1 |
| 2 1 1 | Service provider-to-service provider activities | 2-1 |
| 2 1 2 | Subscription version creation process | 2-1 |
| 2 1 2 1 | Create Subscription Version | 2-1 |
| 2 1 2 2 | Final Concurrence Notification to Old Service Provider | 2-2 |
| 2 1 3 | Service providers perform physical changes | 2-2 |
| 2 1 4 | NPAC SMS "activate and data download" process | 2-2 |
| 2 1 4 1 | New Service Provider sends activation to NPAC SMS | 2-2 |
| 2 1 4 2 | NPAC SMS broadcasts network data to appropriate Service Providers | 2-2 |
| 2 1 4 3 | Failure - notify NPAC | 2-2 |
| 2 1 4 4 | Initiate repair procedures | 2-2 |
| 2 1 5 | Service providers perform network updates | 2-2 |
| 2.2 | Disconnect Process | 2-3 |
| 2 2 1 | Customer notification, Service Provider initial disconnect service order activities | 2-3 |
| 2 2 2 | NPAC waits for effective release date | 2-3 |
| 2 2 3 | NPAC donor notification | 2-3 |
| 2 2 4 | NPAC performs broadcast download of disconnect data | 2-3 |
| 2.3 | Repair Service Process | 2-3 |
| 2 3 2 | Service provider analyzes the problem | 2-4 |
| 2 3 3 | Service provider performs repairs | 2-4 |
| 2 3 4 | Request broadcast of subscription data | 2-4 |
| 2 3 5 | Broadcast repaired subscription data | 2-5 |
| 2.4 | Conflict Process | 2-5 |
| 2 4 1 | Subscription version in conflict | 2-5 |
| 2 4 1 1 | Cancel-Pending Acknowledgment missing from new Service Provider | 2-5 |
| 2 4 1 2 | Old Service Provider requests conflict status | 2-5 |
| 2 4 1 3 | Change of status upon problem notification | 2-5 |
| 2 4 1 4 | Change of status upon Old Service Provider non-concurrence | 2-5 |
| 2 4 1 5 | Change of status upon New Service Provider non-concurrence | 2-5 |
| 2 4 2 | New Service Provider coordinates conflict resolution activities | 2-6 |
| 2 4 2 1 | Cancel pending notification | 2-6 |
| 2 4 3 | Subscription version cancellation | 2-6 |

Table of Contents

| | | |
|------------|--|----------------------------|
| 2 4 4 | Conflict resolved | 2-6 |
| 2.5 | Disaster Recovery and Backup Process | 2-7 |
| 2 5 1 | NPAC personnel determine downtime requirement | 2-7 |
| 2 5 2 | NPAC notifies Service Providers of switch to backup NPAC and start of cutover quiet period | 2-7 |
| 2 5 3 | Service providers connect to backup NPAC | 2-7 |
| 2 5 4 | Backup NPAC notifies Service Providers of application availability and end of cutover quiet period | 2-7 |
| 2 5 5 | Service providers conduct business using backup NPAC | 2-7 |
| 2 5 6 | Backup NPAC notifies Service Providers of switch to primary NPAC and start of cutover quiet period | 2-7 |
| 2 5 7 | Service providers reconnect to primary NPAC | 2-8 |
| 2 5 8 | Primary NPAC notifies Service Providers of availability and end of cutover quiet period | 2-8 |
| 2.6 | Service Order Cancellation Process | 2-8 |
| 2 6 1 | Service Provider issues service order cancellation | 2-8 |
| 2 6 2 | Service provider cancels an un-concurred Subscription Version | 2-8 |
| 2 6 3 | NPAC requests missing acknowledgment from Service Provider | 2-8 |
| 2 6 4 | NPAC cancels the Subscription Version and notifies both Service Providers | 2-8 |
| 2.7 | Audit Request Process | 2-9 |
| 2 7 1 | Service provider requests audit | 2-9 |
| 2 7 2 | NPAC SMS issues queries to appropriate Service Providers | 2-9 |
| 2 7 3 | NPAC SMS compares Subscription Version data | 2-9 |
| 2 7 4 | NPAC SMS updates appropriate Local SMS databases | 2-9 |
| 2 7 5 | NPAC SMS sends report of audit discrepancies to requesting SOA | 2-9 |
| 2 7 6 | NPAC SMS sends report of audit results to requesting SOA | 2-9 |
| 2.8 | Report Request Process | 2-9 |
| 2 8 1 | Service provider requests report | 2-10 |
| 2 8 2 | NPAC SMS generates report | 2-10 |
| 2 8 3 | Report delivered via NPAC Administrative or SOA Low-Tech Interface, Email, electronic file, fax, printer | 2-10 |
| 2.9 | Data Administration Requests | 2-10 |
| 2 9 1 | Service provider requests administration of data by NPAC personnel | 2-10 |
| 2 9 2 | NPAC SMS personnel confirms user's privileges | 2-10 |
| 2 9 3 | NPAC SMS personnel inputs user's request | 2-10 |
| 2 9 4 | NPAC SMS performs user's request | 2-10 |
| 2 9 5 | NPAC SMS personnel logs request denial if user's privileges are not validated | 2-10 |
| 3. | NPAC DATA ADMINISTRATION | 3-1 |
| 3.1 | Overview | 3-1 |
| 3 1 1 | Data Type Legend | 3-2 |
| 3 1 2 | NPAC Customer Data | 3-3 |
| 3 1 3 | Subscription Version Data | 3-183-19 |
| 3 1 4 | Network Data | 3-293-30 |
| 3.2 | NPAC Personnel Functionality | 3-333-34 |
| 3 2 1 | Block Holder, Mass Update | 3-363-37 |
| 3 2 2 | Service Provider ID (SPID) Migration Update | 3-373-38 |
| 3 2 2 1 | SPID Migration Updates and Processing (NANC 323) | 3-38 |
| 3 2 2 2 | SPID Migration Online GUI (NANC 408) | 3-41 |
| 3 2 2 3 | SPID Migration Interface Messages (NANC 408) | 3-52 |
| 3 2 2 4 | SPID Migration Reports (NANC 418) | 3-533-54 |

Table of Contents

| | | |
|-------------|--|-------------------------------|
| 3.3 | System Functionality | 3-54 |
| 3.4 | Additional Requirements | 3-59 |
| 3.4.1 | Valid NPA-NXXs in a Region Data Validations | 3-61 |
| 3.4.2 | NPA-NXX Modification | 3-62 |
| 3.4.3 | Valid NPA-NXXs for each Service Provider | 3-65 |
| 3.4.4 | Pseudo-LRN in a Region Data Validations | 3-66 3-67 |
| 3.5 | NPA Splits Requirements | 3-67 |
| 3.5.1 | NPA-NXX-X, NPA Splits | 3-74 3-75 |
| 3.5.2 | Block Holder, NPA Splits | 3-77 |
| 3.6 | NPA-NXX Filter Management Requirements | 3-78 3-79 |
| 3.6.1 | NPA-NXX Level Filters | 3-78 3-79 |
| 3.6.2 | NPA Level Filters | 3-79 3-80 |
| 3.7 | Business Hour and Days Requirements..... | 3-80 3-81 |
| 3.8 | Notifications | 3-82 3-83 |
| 3.8.1 | TN Range Notification Indicator | 3-82 3-83 |
| 3.8.2 | Customer No New SP Concurrence Notification Indicator | 3-83 |
| 3.8.3 | SOA Notification Priority | 3-83 3-84 |
| 3.8.4 | TN and Number Pool Block in Notifications | 3-84 3-85 |
| 3.8.5 | Notifications Suppression – Types of Requests | 3-85 3-86 |
| 3.9 | Service Provider Support Indicators | 3-88 |
| 3.9.1 | SV Type and Alternative SPID Indicators | 3-88 |
| 3.9.2 | Alternative-End User Location and Alternative Billing ID Indicators | 3-90 |
| 3.9.3 | URI Indicators | 3-91 |
| 3.9.4 | Medium Timers Support Indicators | 3-92 3-93 |
| 3.9.5 | Pseudo-LRN Support Indicators | 3-93 |
| 3.10 | Multiple Service Provider Ids Per Primary SOA Requirements..... | 3-95 |
| 3.11 | Bulk Data Download Functionality | 3-97 |
| 3.11.1 | Bulk Data Download Functionality - General | 3-97 |
| 3.11.2 | Network Data, Bulk Data Download | 3-97 3-98 |
| 3.11.3 | Subscription Version, Bulk Data Download | 3-99 3-100 |
| 3.11.4 | NPA-NXX-X Holder, Bulk Data Download | 3-102 |
| 3.11.5 | Block Holder, Bulk Data Downloads | 3-102 3-103 |
| 3.11.6 | Notifications, Bulk Data Download | 3-104 3-105 |
| 3.11.7 | Bulk Data Download Response Files | 3-106 |
| 3.12 | NPA-NXX-X Information | 3-108 |
| 3.12.1 | NPA-NXX-X Download Indicator Management | 3-108 |
| 3.12.2 | NPA-NXX-X Holder Information | 3-109 |
| 3.12.3 | NPA-NXX-X Holder, NPAC Scheduling/Re-Scheduling of Block Creation | 3-110 3-111 |
| 3.12.4 | NPA-NXX-X Holder, Addition | 3-114 |
| 3.12.5 | NPA-NXX-X Holder, Modification | 3-115 3-116 |
| 3.12.6 | NPA-NXX-X Holder, Deletion | 3-117 |
| 3.12.7 | NPA-NXX-X Holder, First Port Notification | 3-118 3-119 |
| 3.12.8 | NPA-NXX-X Holder, Query | 3-119 3-120 |
| 3.13 | Block Information..... | 3-119 3-120 |

Table of Contents

| | | |
|-------------|---|-----------------------------------|
| 3 13 1 | Version Status | 3-1193-120 |
| 3 13 2 | Block Holder, General | 3-1223-123 |
| 3 13 3 | Block Holder, Addition | 3-1313-132 |
| 3 13 4 | Block Holder, Modification | 3-1353-136 |
| 3 13 5 | Block Holder, Deletion | 3-1373-138 |
| 3 13 6 | Block Holder, Query | 3-1383-139 |
| 3 13 7 | Block Holder, Default Routing Restoration | 3-1393-140 |
| 3 13 8 | Block Holder, Re-Send | 3-1393-140 |
| 3.14 | Linked Action Replies | 3-1413-142 |
| 3.15 | GTT Validation Processing by the NPAC SMS | 3-1453-146 |
| 3 15 1 | Sub System Number (SSN) Edit Flag Indicator | 3-1453-146 |
| 3 15 2 | Global GTT Validations | 3-1473-148 |
| 3.16 | Low-Tech Interface DPC-SSN Validation Processing by the NPAC SMS | 3-1533-154 |
| 3.17 | Customer Onboarding..... | 3-1543-155 |
| 4. | SERVICE PROVIDER DATA ADMINISTRATION | 4-1 |
| 4.1 | Service Provider Data Administration and Management..... | 4-1 |
| 4 1 1 | User Functionality | 4-1 |
| 4 1 2 | System Functionality | 4-2 |
| 4 1 2 1 | Service Provider Data Creation | 4-2 |
| 4 1 2 2 | Service Provider Data Modification | 4-6 |
| 4 1 2 3 | Delete Service Provider Data | 4-7 |
| 4 1 3 | Service Provider Queries | 4-7 |
| 4 1 3 1 | User Functionality | 4-7 |
| 4 1 3 2 | System Functionality | 4-8 |
| 4 1 4 | Service Provider Accepted SPID List | 4-8 |
| 4.2 | Additional Requirements..... | 4-9 |
| 5. | SUBSCRIPTION MANAGEMENT | 5-1 |
| 5.1 | Subscription Version Management..... | 5-1 |
| 5 1 1 | Subscription Version Management | 5-2 |
| 5 1 1 1 | Version Status | 5-3 |
| 5 1 2 | Subscription Administration Requirements | 5-13 |
| 5 1 2 1 | User Functionality | 5-13 |
| 5 1 2 2 | System Functionality | 5-14 |
| 5 1 2 2 1 | Subscription Version Creation | 5-14 |
| 5 1 2 2 1 1 | Subscription Version Creation - Inter-Service Provider Ports | 5-15 |
| 5 1 2 2 1 2 | Subscription Version Creation - Intra-Service Provider Port | 5-23 |
| 5 1 2 2 2 | Subscription Version Modification | 5-30 |
| 5 1 2 2 2 1 | Modification of a Pending or Conflict Subscription Version | 5-31 |
| 5 1 2 2 2 2 | Modification of an Active/Disconnect Pending Subscription Version | 5-35 |
| 5 1 2 2 3 | Subscription Version Conflict | 5-40 |
| 5 1 2 2 3 1 | Placing a Subscription Version in Conflict | 5-40 |
| 5 1 2 2 3 2 | Removing a Subscription Version from Conflict | 5-42 |
| 5 1 2 2 4 | Subscription Version Activation | 5-44 |
| 5 1 2 2 5 | Subscription Version Disconnect | 5-49 |

Table of Contents

| | | |
|-------------|--|------------|
| 5 1 2 2 6 | Subscription Version Cancellation | 5-55 |
| 5 1 2 2 6 1 | Un-do a “Cancel-Pending” Subscription | 5-59 |
| 5 1 2 2 7 | Subscription Version Resend | 5-60 |
| 5 1 3 | Subscription Queries | 5-63 |
| 5 1 3 1 | User Functionality | 5-63 |
| 5 1 3 2 | System Functionality | 5-64 |
| 5 1 4 | Subscription Version Processing for National Number Pooling | 5-71 |
| 5 1 4 1 | Subscription Version, General | 5-71 |
| 5 1 4 2 | Subscription Version, Addition for Number Pooling | 5-72 |
| 5 1 4 3 | Subscription Version, Block Create Validation of Subscription Versions | 5-74 |
| 5 1 4 4 | Subscription Version, Modification for Number Pooling | 5-75 |
| 5 1 4 5 | Subscription Version, Deletion for Number Pooling | 5-76 |
| 5 1 4 6 | Subscription Version, Block Delete Validation of Subscription Versions | 5-76 |
| 6. | NPAC SMS INTERFACES | 6-1 |
| 6.1 | SOA to NPAC SMS Interface..... | 6-1 |
| 6.2 | NPAC SMS-to-Local SMS Interface..... | 6-1 |
| 6.3 | Interface Transactions | 6-1 |
| 6.4 | Interface and Protocol Requirements | 6-1 |
| 6 4 1 | Protocol Requirements | 6-2 |
| 6 4 2 | Interface Performance Requirements | 6-2 |
| 6 4 3 | Interface Specification Requirements | 6-3 |
| 6 4 4 | Request Restraints | 6-4 |
| 6 4 5 | Application Level Errors | 6-5 |
| 6.5 | NPAC SOA Low-tech Interface | 6-8 |
| 6.6 | Request Retry Requirements..... | 6-9 |
| 6 6 1 | CMIP Request Retry Requirements | 6-9 |
| 6 6 2 | XML Request Retry Requirements | 6-10 |
| 6.7 | Recovery –..... | 6-11 |
| 6 7 1 | Notification Recovery | 6-14 |
| 6 7 2 | Network Data Recovery | 6-16 |
| 6 7 3 | Subscription Data Recovery | 6-19 |
| 6 7 4 | Service Provider Recovery | 6-24 |
| 6.8 | Out-Bound Flow Control..... | 6-25 |
| 6.9 | Roll-Up Activity and Abort Behavior | 6-26 |
| 6.10 | NPAC Monitoring of SOA and LSMS Associations | 6-27 |
| 6.11 | Separate SOA Channel for Notifications | 6-29 |
| 6.12 | Maintenance Window Timer Behavior..... | 6-30 |
| 6.13 | XML Message Batching | 6-31 |

Table of Contents

| | | |
|-----------|---|---------------------|
| 6.14 | XML Message Delegation | 6-32 |
| 6.15 | XML Notification Consolidation | 6-33 |
| 6.16 | XML Query Reply | 6-33 |
| 6.17 | XML Concurrent HTTPS Connections | 6-33 |
| 7. | SECURITY | 7-1 |
| 7.1 | Overview..... | 7-1 |
| 7.2 | Identification | 7-1 |
| 7.3 | Authentication | 7-2 |
| 7 3 1 | Password Requirements | 7-3 |
| 7.4 | Access Control | 7-4 |
| 7 4 1 | System Access | 7-5 |
| 7 4 2 | Resource Access | 7-7 |
| 7.5 | Data and System Integrity | 7-8 |
| 7.6 | Audit | 7-117-9 |
| 7 6 1 | Audit Log Generation | 7-117-9 |
| 7 6 2 | Reporting and Intrusion Detection | 7-127-11 |
| 7.7 | Continuity of Service..... | 7-147-12 |
| 7.8 | Software Vendor..... | 7-157-13 |
| 7.9 | Mechanized Security Environment | 7-157-13 |
| 7 9 1 | Threats | 7-157-13 |
| 7 9 2 | Security Services | 7-157-14 |
| 7 9 3 | Security Mechanisms | 7-167-14 |
| 7 9 3 1 | Encryption | 7-167-14 |
| 7 9 3 2 | Authentication | 7-167-15 |
| | Data Origin Authentication | 7-177-15 |
| 7 9 3 3 | Integrity and Non-repudiation | 7-177-16 |
| 7 9 3 4 | Access Control | 7-187-16 |
| 7 9 3 5 | Audit Trail | 7-187-17 |
| 7 9 3 6 | Key Exchange | 7-187-17 |
| 8. | AUDIT ADMINISTRATION | 8-1 |
| 8.1 | Overview..... | 8-1 |
| 8.2 | Service Provider User Functionality | 8-1 |
| 8.3 | NPAC User Functionality | 8-2 |
| 8.4 | System Functionality | 8-3 |

Table of Contents

| | | |
|--|---|-------------|
| 8.5 | Audit Report Management | 8-5 |
| 8.6 | Additional Requirements | 8-6 |
| 8.7 | Database Integrity Sampling | 8-6 |
| 8.8 | Audit Processing in a Number Pool Environment | 8-6 |
| 8.9 | Audit Processing in a Pseudo-LRN Environment | 8-9 |
| 9. | REPORTS | 9-1 |
| 9.1 | Overview | 9-1 |
| 9.2 | User Functionality | 9-1 |
| 9.3 | System Functionality | 9-3 |
| 9.3.1 | National Number Pooling Reports | 9-4 |
| 9.3.2 | Cause Code Reports | 9-6 |
| 9.3.3 | Resend Excluded Service Provider Report | 9-7 |
| 10. | PERFORMANCE AND RELIABILITY | 10-2 |
| 10.1 | Availability and Reliability | 10-2 |
| 10.2 | Capacity and Performance | 10-4 |
| 10.3 | Requirements in RFP Not Given a Unique ID | 10-5 |
| 11. | BILLING | 11-1 |
| 11.1 | User Functionality | 11-1 |
| 11.2 | System Functionality | 11-1 |
| Appendix A. BUSINESS PROCESS FLOWS (DELETED) | | A-1 |
| Appendix B. GLOSSARY | | B-1 |
| Appendix C. SYSTEM TUNABLES | | C-1 |
| Appendix D. ENCRYPTION KEY EXCHANGE | | D-1 |
| Appendix E. DOWNLOAD FILE EXAMPLES | | E-1 |
| Appendix F. Midwest Region Number Pooling (deleted) | | F-1 |
| Appendix G. Deleted Requirements | | G-1 |
| Appendix H. Release Migration | | H-1 |

List of Figures

| | |
|---|-----------------------|
| Figure 3-1 -- Entity Relationship Model | 3-2 |
| Figure 3-2 -- Number Pool Block Version Status Interaction Diagram | 3-1203-117 |
| Figure 5-1 -- Subscription Version Status Interaction Diagram | 5-3 |
| Figure E-1 -- Subscription Download File Example | E-2 |
| Figure E-2 -- Network Service Provider Download File Example, SP Supports SP Type | E-5 |
| Figure E-3 -- Network NPA-NXX Download File Example | E-6 |
| Figure E-4 -- Network LRN Download File Example | E-7 |
| Figure E-5 -- Network NPA-NXX-X Download File Example | E-9 |
| Figure E-6 -- Block Download File Example | E-11 |

List of Tables

| | |
|---|-----------------------|
| Table 0-1 Notation Key | 0-6 |
| Table 0-2 Language Key | 0-6 |
| Table 1-1 Business Day/Hour Behavior | 1-6 |
| Table 1-2 Timer Type Behaviour | 1-7 |
| Table 1-3 Vacant Number Treatment/Snapback Notification | 1-13 |
| Table 1-4 Business Hours/Business Days | 1-14 |
| Table 1-5 Short/Medium/Long Hours/Days | 1-15 |
| Table 1-6 Pseudo-LRN Tunables | 1-21 |
| Table 3-1 Data Type Legend | 3-3 |
| Table 3-2 NPAC Customer Data Model | 3-14 |
| Table 3-3 NPAC Customer Contact Data Model | 3-16 |
| Table 3-4 NPAC Customer Network Address Data Model | 3-17 |
| Table 3-5 NPAC Customer Associated Service Provider Data Model | 3-17 |
| Table 3-6 NPAC Customer Request-Delegate Data Model | 3-17 |
| Table 3-7 Subscription Version Data Model | 3-243-25 |
| Table 3-8 Subscription Version Failed SP List Data Model | 3-243-25 |
| Table 3-9 Number Pooling Block Holder Information Data Model | 3-293-30 |
| Table 3-10 Number Pooling Block Failed SP List Data Model | 3-293-30 |
| Table 3-11 Portable NPA-NXX Data Model | 3-303-31 |
| Table 3-12 LRN Data Model | 3-313-32 |
| Table 3-13 LSMS Filtered NPA-NXX Data Model | 3-313-32 |
| Table 3-14 Number Pooling NPA-NXX-X Holder Information Data Model | 3-323-33 |
| Table 3-15 NPAC Customer Pseudo-LRN Accepted SPID List Data Model | 3-333-34 |
| Table 3-16 NPAC Customer Notification Suppression Authorized SPID List Data Model | 3-333-34 |
| Table 3-17 Number Pool Block Version Status Interaction Descriptions | 3-1223-123 |
| Table 5-1 Subscription Version Status Interaction Descriptions | 5-8 |
| Table 6-1 CMIP Interface Protocol Stack | 6-2 |
| Table C-1 -- Subscription Tunables | C-5 |
| Table C-2 -- Communications Tunables | C-10 |
| Table C-3 -- Audit Tunables | C-10 |
| Table C-4 -- Logs Tunables | C-11 |
| Table C-5 -- Keys Tunables | C-11 |
| Table C-6 -- Block Tunables | C-12 |

List of Tables

| | |
|--|------|
| Table D-1 -- Encryption Key Exchange File Format | D-2 |
| Table D-2 -- Encryption Key Acknowledgement File Format | D-3 |
| Table E-1 -- Explanation of the Fields in the Subscription Download File | E-3 |
| Table E-2 -- Explanation of the Fields in the Network Service Provider Download File | E-5 |
| Table E-3 -- Explanation of the Fields in the Network NPA/NXX Download File | E-7 |
| Table E-4 -- Explanation of the Fields in the Network LRN Download File | E-8 |
| Table E-5 -- Explanation of the Fields in the Network NPA-NXX-X Download File | E-10 |
| Table E-6 -- Explanation of the Fields in the Block Download File | E-13 |
| Table E-7 -- Explanation of the Fields in the Notification Download File | E-57 |
| Table E-8 -- Explanation of the Fields in the NPA-NXX SMURF File | E-58 |
| Table E-9 -- Explanation of the Fields in the LRN SMURF File | E-59 |
| Table E-10 -- Explanation of the Fields in the NPA-NXX-X SMURF File | E-60 |

0. Preface

This section describes the organization and typographical conventions used within the document

0.1 Document Structure

This document is organized into sections as defined below:

| | |
|-------------------|--|
| Preface | This section describes the document structure, conventions, and references used to develop this document |
| Section 1 | Introduction - This section introduces the project and describes its scope and objectives, constraints, associated assumptions, and related references |
| Section 2 | Business Process Flows - This section provides the high level processing flows for the NPAC SMS |
| Section 3 | NPAC Data Administration - This section provides the high level functional requirements related to the NPAC SMS data relationships |
| Section 4 | Service Provider Data Administration - This section contains the functional requirements for managing service provider information on the NPAC SMS |
| Section 5 | Subscription Administration - This section contains the functional requirements associated with managing service provider subscriptions for ported numbers on the NPAC SMS |
| Section 6 | NPAC SMS Interfaces - This section contains the functional requirements associated with the NPAC SMS external interfaces |
| Section 7 | Security - This section contains the functional requirements for the NPAC SMS system security |
| Section 8 | Audit Administration - This section contains the functional requirements for NPAC SMS audit administration |
| Section 9 | Reports - This section contains the functional requirements for NPAC SMS reporting capabilities |
| Section 10 | Performance and Reliability - This section contains the functional requirements for NPAC SMS system performance and reliability |
| Section 11 | Billing - This section contains the functional requirements for NPAC SMS usage recording for usage billing |
| Appendix A | NPAC SMS process flows This section is deleted in release 3 4 6 |
| Appendix B | Glossary - This section provides a description of all acronyms and terms used in this document |
| Appendix C | System Tunables - This section provides a list of all system tunables and their default values |

Preface

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|-------------------|--|
| Appendix D | Encryption Key Exchange – This section provides information on exchange of keys between Service Providers and the NPAC SMS |
| Appendix E | Download File Examples – This section provides descriptions of the NPAC SMS data download files |
| Appendix F | Midwest Region Number Pooling – This section is deleted in release 3 0 0 |
| Appendix G | Deleted Requirements – This section provides a list of requirements that have been deleted from the FRS |
| Appendix H | Release Migration – This section provides requirements for the data migration of the NPAC SMS from Release 2 0 to 3 0 |

0.2 Document Numbering Strategy

Starting with Release 2 0 the documentation number of the FRS document will be Version X Y Z as follows:

- X – Will only be incremented when a new major release of the NPAC SMS system is authorized. It will contain only the Change Orders that have been authorized for inclusion in this new major release.
- Y – Will only be incremented when a new sub-release of an existing release X is authorized. It will contain only the Change Orders that have been authorized for inclusion in this new sub-release.
- Z – Will be incremented when documentation only clarifications and/or backward compatibility issues or other deficiency corrections are made in the FRS and/or IIS. This number will be reset to 0 when Y is incremented.

For example, the first release of the Release 2 FRS will be numbered 2 0 0. If documentation only clarifications are introduced in the next release of the FRS document it will be numbered 2 0 1. If requirements are added to Release 2 0 that require NPAC SMS software changes then the next release of the FRS document will be numbered 2 1 0.

This number scheme is intended to make the mapping between NPAC SMS and the FRS and IIS documentation consistent.

Starting with Release 3 2, the documentation number of the FRS document will include a "lowercase letter" following the Z designation. This "lowercase letter" will essentially serve as a version indicator for the release of the documentation, such that the X Y Za will be a unique identifier. It will be used for both drafts and final versions. For example, the first release using this new convention will be 3 2 0a, followed by 3 2 0b, and so on. The "lower case letter" shall be reset to 'a' when Z is incremented.

0.3 Document Version History

0.3.1 Release 1.0

NANC Version 1.0, released on 04/07/97, contains changes from the ICC Subcommittee FRS Version 1.1.5.

NANC Version 1.1, released on 05/08/97, contains changes from the NANC FRS Version 1.0.

NANC Version 1.2, released on 05/25/97, contains changes from the NANC FRS Version 1.1.

NANC Version 1.3, released on 07/09/97, contains changes from the NANC FRS Version 1.2.
NANC Version 1.4, released on 08/08/97, contains changes from the NANC FRS Version 1.3.
NANC Version 1.5, released on 09/09/97, contains changes from the NANC FRS Version 1.4.
NANC Version 1.6, released on 11/12/97, contains changes from the NANC FRS Version 1.5.
NANC Version 1.7, released on 12/12/97, contains changes from the NANC FRS Version 1.6.
NANC Version 1.8, released on 2/11/98, contains changes from the NANC FRS Version 1.7.
NANC Version 1.9, released on 5/13/98, contains changes from the NANC FRS Version 1.8.
NANC Version 1.10, released on 7/8/98, contains changes from the NANC FRS Version 1.9.

0.3.2 Release 2.0

NANC Version 2.0.0, released on 12/1/98, contains changes from the NANC FRS Version 1.10.
NANC Version 2.0.1, released on 5/1/99, contains changes from the NANC FRS Version 2.0.0.
NANC Version 2.0.2, released on 9/1/99, contains changes from the NANC FRS Version 2.0.1.

0.3.3 Release 3.0

NANC Version 3.0.0, released on 1/5/00 and 2/4/00 (revised version), contains changes from the NANC FRS Version 2.0.2.
NANC Version 3.0.1, released on 6/6/00, contains changes from the NANC FRS Version 3.0.0.
NANC Version 3.0.2, released on 3/1/01, contains changes from the NANC FRS Version 3.0.1.
NANC Version 3.0.3, released on 3/19/01, contains changes from the NANC FRS Version 3.0.2.

0.3.4 Release 3.1

NANC Version 3.1, released on 8/6/01, contains changes from the NANC FRS Version 3.0.3.

0.3.5 Release 3.2

NANC Version 3.2.0, released on 7/19/02, contains changes from the NANC FRS Version 3.1.0.
NANC Version 3.2.1a, released on 6/27/03 contains changes from the NANC FRS Version 3.2.0.
NANC Version 3.2.2a, released on 6/30/04 contains the changes from the NANC FRS Version 3.2.1a.

0.3.6 Release 3.3

NANC Version 3.3.0a, released on 3/28/05, contains changes from the NANC Version 3.2.2a.

NANC Version 3.3.0b, released on 4/22/05 contains changes from the NANC FRS Version 3.3.0a.

NANC Version 3.3.0c, released on 5/12/05 contains changes from the NANC FRS Version 3.3.0b.

NANC Version 3.3.0d, released on 6/22/05 contains changes from the NANC FRS Version 3.3.0c.

NANC Version 3.3.0e, released on 8/2/05 contains changes from the NANC FRS Version 3.3.0d.

NANC Version 3.3.1a, released on 10/14/2005 contains changes from the NANC FRS Version 3.3.0e.

NANC version 3.3.2a, released on 3/7/2006 contains changes from the NANC FRS Version 3.3.1a.

NANC version 3.3.3a, released on 2/28/2007 contains changes from the NANC FRS Version 3.3.2a.

0.3.7 Release 3.3.4

NANC version 3.3.4a, released on 12/8/2009 contains changes from the NANC FRS Version 3.3.3a.

NANC version 3.3.4b, released on 1/22/2010 contains numbering corrections from the NANC FRS Version 3.3.4a.

NANC version 3.3.4c, released on 5/24/2010 contains numbering corrections from the NANC FRS Version 3.3.4b.

0.3.8 Release 3.4

NANC version 3.4.0a, released on 3/19/2010 contains the following changes from the NANC FRS Version 3.3.4b:

- **Change Order** NANC 147 – Version ID Rollover Strategy
- **Change Order** NANC 355 – Modification of NPA-NXX Effective Date
- **Change Order** NANC 396 – NPAC Filter Management – NPA-NXX Filters
- **Change Order** NANC 397 – Large Volume Port Transactions and SOA Throughput
- **Change Order** NANC 408 – SPID Migration Automation Change
- **Change Order** NANC 414 – Validation of Code Ownership in the NPAC
- **Change Order** NANC 418 – Post-SPID Migration SV Counts
- **Change Order** NANC 420 – Doc-Only Change Order: FRS Updates
- **Change Order** NANC 424 – Number Pool Block (NPB) Donor Disconnect Notification Priority Indicator
- **Change Order** NANC 426 – Provide Modify Request Data to the SOA from Mass Updates

Preface

- **Change Order** NANC 427 – Error Reduction for DPC entries in new ported and pooled records
- **Change Order** NANC 433 – VoIP SV Type
- **Change Order** NANC 434 – VoIP SP Type
- **Change Order** NANC 439 – Doc-Only Change Order: FRS Updates

NANC version 3.4.0b, released on 4/19/2010 contains updates from the NANC FRS Version 3.4.0a.

- **Change Order** NANC 421 – Updates for Prepaid Wireless SV Type
- **Change Order** NANC 428 – Update NPAC file transfer method from FTP to Secure-FTP

NANC version 3.4.0c, released on 8/31/2010 contains updates from the NANC FRS Version 3.3.4c and 3.4.0b.

- **Change Order** NANC 442 – Pseudo-LRN

NANC version 3.4.0d, released on 12/31/2010 contains updates from the NANC FRS Version 3.4.0c.

NANC version 3.4.0e, released on 2/28/2011 contains updates from the NANC FRS Version 3.4.0d.

NANC version 3.4.0f, released on 5/31/2011 contains updates from the NANC FRS Version 3.4.0e.

NANC version 3.4.1a, released on 7/31/2012 contains updates from the NANC FRS Version 3.4.0f.

- **Change Order** NANC 445 – Appendix E – BDDs – OptionalData
- **Change Order** NANC 446 – Pending SV Interference when Create NPB

NANC version 3.4.2a, released on 2/8/2013 contains updates from the NANC FRS Version 3.4.1a.

- **Change Order** NANC 448 – NPAC Sunset of non-EDR

NANC version 3.4.6a, released on 12/31/2013 contains updates from the NANC FRS Version 3.4.2a.

- **Change Order** NANC 372 –SOA/LSMS Interface Protocol Alternatives (aka XML Interface)

NANC version 3.4.6b, released on 2/14/2014 contains updates from the NANC FRS Version 3.4.6a.

NANC version 3.4.6c, released on 4/11/2014 contains updates from the NANC FRS Version 3.4.6b.

- **Change Order** NANC 452 –Ethernet Connectivity to the NPAC

NANC version 3.4.6d, released on 6/18/2014 contains updates from the NANC FRS Version 3.4.6c.

NANC version 3.4.8a, released on 4/15/2015 contains updates from the NANC FRS Version 3.4.6d.

- **Change Order** NANC 444 – LTI Enhancements (inadvertently not included in 3 4 1a, 7/31/12 above, so added into this release)
- **Change Order** NANC 458 – Service Provider-requested Notification Suppression

Preface

NANC version 3.4.8b, released on 6/26/2015 contains updates from the NANC FRS Version 3.4.8a.

- o **Change Order** NANC 459 – Doc-Only LTI Unused User ID Disable Period

0.4 Abbreviations and Notations

To uniquely identify requirements, this document follows a naming convention where the first character is always a letter denoting whether the item is an assumption (A), a constraint (C) or a requirement (R)

In order to identify all NPAC SMS functional requirements this document incorporates information from three sources: the Illinois NPAC SMS RFP, Lockheed Martin's (NeuStar, Inc as of December 1999) response to the RFP and requirements definition activities performed with the Illinois Number Portability SMS Subcommittee

Illinois number of requirements has been adopted for the initial release of the NANC document. In Illinois as requirements were deleted the requirement number and an indication of its deletion were left in the document for tracking purposes. NANC has chosen to leave these deleted requirements in this document for the initial release of the document. Further explanation of the numbering scheme follows

If the second character is the letter "N", the item is a requirement, assumption or a constraint that was stated in the narrative portion of the RFP and not assigned a number. The number following this character identifies the item's section in the RFP/requirements document

If the second character is the letter "X", the item is a requirement, assumption or a constraint that was added upon award, and **not** in the RFP. These items represent clarifications or enhancements to the RFP. The number following this character identifies the item's section in the RFP/requirements document

If the second character is the letter "R", the item is a requirement, assumption or a constraint that was identified during requirements analysis and verification activities subsequent to award. These items represent clarifications or enhancements to the RFP. The number following this character identifies the item's section in the RFP/requirements document

The following labels are used to identify assumptions, constraints, and requirements within the document. Each label begins with the letter A, C, or R followed either by a number or letter illustrated below:

| | |
|----------|--|
| A-<nnn> | Is a label for each assumption in the document. Assumptions are conditions that are expected to be true during the design and implementation phases of the project. This is an assumption that was a numbered assumption in the RFP. |
| AN-<nnn> | This is an assumption that was contained in the narrative text in the RFP. |
| AP-<nnn> | This is an assumption that was added upon award. |
| AR-<nnn> | This is an assumption that was identified as a new assumption for the system, during post-award meetings with the Illinois LCC. |
| C-<nnn> | Is a label for each constraint within the document. Constraints are conditions that restrict the design and implementation scope of the project. This is a constraint that was a numbered constraint in the RFP. |
| CN-<nnn> | This is a constraint that was contained in the narrative text in the RFP. |
| CP-<nnn> | This is a constraint that was added upon award. |

Preface

| | |
|----------|---|
| CR-<nnn> | This is a constraint that was identified as a new constraint for the system, during post-award meetings with the Illinois LCC |
| R-<nnn> | Is a label for each requirement in the document. Requirements define the functionality expected of the design and implementation. This is a requirement that was a numbered requirement in the RFP. |
| RN-<nnn> | This is a requirement that was contained in the narrative text in the RFP. |
| | |

| | |
|----------|--|
| RX-<nnn> | This is a requirement that was added upon award. |
| RR-<nnn> | This is a requirement that was identified as a new requirement for the system, during post-award meetings with the Illinois LCC. |

Table 0-1 Notation Key

0.5 Document Language

Specific language is used in the document to denote whether a statement is informative or required. The following words have these connotations when used to describe actions or items:

| | |
|------------------|--|
| shall | The use of the term “shall” in this document is intended to precede a required statement. Compliance with “shall” must be demonstrated during design review and system acceptance testing. |
| is, will, should | Use of the terms “is,” “will,” or “should” in this document is intended to identify guidance or preference. Statements annotated in this manner are to be treated as informative or preference, but not required. Statements following the words “is,” “will,” or “should” are not a mandatory deliverable for the final system. |

Table 0-2 Language Key

1. Introduction

This document defines the functional requirements of the Number Portability Administration Center Service Management System (NPAC SMS) enabling Service Provider Portability.

This introduction gives readers a brief overview of NPAC SMS functionality. It is intended to prepare you for the detailed sections that follow. If you need more information on any particular area, please consult the applicable detailed sections in the remainder of this document or the *NPAC SMS Interoperable Interface Specification*.

This introduction is also meant to convey the basic course of events that give the best understanding of the system. Alternate courses of events (variants of the basic course or error paths) are described in the detailed sections later in this document and in the *NPAC SMS Interoperable Interface Specification (IIS)*, or the *NPAC SMS XML Interface Specification (XIS)*.

1.1 NPAC SMS Platform Overview

The Number Portability Administration Center Service Management System (NPAC SMS) is a hardware and software platform, which contains the database of information required to effect the porting of telephone numbers. In general, the NPAC SMS can receive customer information from both the old and new Service Providers (including the new Location Routing Number), validates the information received, and downloads the new routing information when an "activate" message is received indicating that the customer has been physically connected to the new Service Provider's network. The NPAC SMS also contains a record of all ported numbers and a history file of all transactions relating to the porting of a number. The NPAC SMS shall also provide audit functionality and the ability to transmit LNP routing information to Service Providers to maintain synchronization of Service Provider's network elements that support LNP.

1.2 NPAC SMS Functional Overview

1.2.1 Provisioning Service Functionality

The new Service Provider will obtain authorization to port the customer and notify the old Service Provider according to processes internal to the Service Providers. Both the old and new Service Providers can send a request to the NPAC SMS from their Service Order Administration Systems (SOA). When the NPAC SMS receives the request(s), it will perform certain validation checks, and attempt to match the request received from the new Service Provider with a concurring request that may be sent from the old Service Provider. Assuming the requests are valid, the two Service Providers will complete any physical changes required. When the new Service Provider due date is reached, the new Service Provider can send an activation request to the NPAC SMS. The NPAC SMS will broadcast the update out in real time to each local SMS. Upon receiving the update from the NPAC SMS, all Service Providers will update their networks. The NPAC SMS will record any transmission failures and take the appropriate action.

In the case where either the old or new Service Providers did not send a request to the NPAC SMS, the NPAC SMS will notify the Service Provider from which it did not receive a request that it is expecting a request. If it then receives the missing request and the requests indicate agreement among the Service Providers, the process proceeds as normal. If it still does not receive a request and if it is the old Service Provider that failed to respond, the NPAC SMS will log the failure to respond and allow the new Service Provider to proceed with activation when the new Service Provider due date is reached. If it was the new Service Provider that failed to respond, the NPAC will log

Introduction

the failure to respond, cancel the request, and notify both Service Providers of the cancellation. If there is disagreement among the Service Providers as to who will be providing service for the telephone number, the conflict resolution procedures will be implemented (see Section 1.2.4). Processes for obtaining authorization from the customer to port a number are defined by the Service Providers. The NPAC is not involved in obtaining or verifying customer approval to port a TN.

1.2.2 Disconnect Service Functionality

When a ported number is being disconnected, the customer and Service Provider will agree on a date. The current Service Provider will send an update indicating the disconnect to the NPAC SMS. If the Service Provider needs to change the Customer Disconnect Date (CDD) or Effective Release Date (ERD) of the disconnect, the Service Provider will send a modify request to the NPAC SMS. The NPAC SMS will broadcast the update to all Service Providers based on the disconnect effective date and remove the telephone number from its database of ported numbers. Upon receiving the update, all Service Providers will remove the telephone number from their LNP databases. The NPAC SMS will log the update in history. Calls to the telephone number will be routed as a non-ported number.

1.2.3 Repair Service Functionality

A problem will be detected either by a Service Provider or by a customer contacting a Service Provider.

There will be audit capabilities in the NPAC SMS to aid in isolating problems. If an inaccuracy is found, the NPAC SMS will supply the correct data to any local SMS requesting updates.

1.2.4 Conflict Resolution Functionality

If Service Providers disagree on who will serve a particular line number, the NPAC SMS will place the request in the "conflict" state and notify both Service Providers of the conflict status and the Status Change Cause Code. The Service Providers will determine who will serve the customer via internal processes. When a resolution is reached, the NPAC will be notified and will remove the request from the "conflict" state by one of the two Service Providers. The new Service Provider can cancel the Subscription Version.

1.2.5 Disaster Recovery and Backup Functionality

If there is unplanned downtime, the NPAC will assess how long the primary machine will be down. The NPAC will notify all of the Service Providers of the situation and planned action by electronic notification and telephone calls to the Service Providers' contact numbers. The Service Providers will attempt to switch to the backup NPAC.

1.2.6 Order Cancellation Functionality

If a Create Subscription request has been sent by only the new Service Provider, the new Service Provider may send a message to the NPAC SMS to cancel the Subscription Version. If a Create Subscription request has been sent by only the old Service Provider, the old Service Provider may send a message to the NPAC SMS to cancel the Subscription Version. If both Service Providers have sent a Create Subscription request, either may send a message to the NPAC SMS to cancel the Subscription Version. If both Service Providers concur with the cancellation, the NPAC SMS will set the Subscription Version to canceled and notify both Service Providers that the Subscription Version has been canceled. If cancellation concurrence is not provided by the new Service Provider the Subscription Version is placed in conflict by the NPAC SMS. If cancellation concurrence is not provided by the old Service Provider, the Subscription Version is set to canceled by the NPAC SMS.

1.2.7 Audit Request Functionality

An audit function will be necessary for troubleshooting customer problems and also as a maintenance process to ensure Subscription Version data integrity across the entire LNP network. Audits will be concerned with the process of comparing the NPAC SMS view of the LNP network's Subscription Version data with one or more of the Service Provider's views of its network. In the case of "on demand" audits, audits may be initiated by any Service Provider who has reason to believe a problem may exist in another Service Provider's network. These audits are executed via queries to the appropriate Service Provider's network, and corrected via downloads to those same networks.

In addition, Local Service Providers will be responsible for comparing database extracts of Subscription data written to a Secure-FTP site by the NPAC SMS with their own versions of the same Subscription data.

In a third scenario, the NPAC SMS will select a random sample of active Subscription Versions from its own database, then compare those samples to the representation of that same data in the various Local SMS databases. All three of the methods outlined above are designed to help ensure data integrity across the LNP network.

1.2.8 Report Request Functionality

The NPAC SMS supports report generation for pre-defined and ad-hoc reports. The report generation function creates output report files according to specified format definitions, and distributes reports to output devices as requested. The report distribution service supports distribution to electronic files, local/remote printers, e-mail and FAX machines.

1.2.9 Data Management Functionality

The NPAC SMS will support functionality to manage network, Service Provider, and Subscription Version data.

1.2.9.1 NPAC Network Data

The NPAC SMS contains data, which defines the configuration of the LNP service and network. This includes data such as: participating Service Providers, NPA-NXXs that are portable, and LRNs associated with each Service Provider.

1.2.9.2 Service Provider Data

The Service Provider data indicates who the LNP Service Providers are and includes location, contact name, security, routing, and network interface information.

1.2.9.3 Subscription Version Data

The subscription data indicates how local number portability should operate to meet subscribers' needs.

1.2.10 NPA-NXX Split Processing

NPA Splits are initiated on the NPAC through regular processing of an industry source that contains industry standard data. Based on information from these files, the NPAC SMS will automatically perform all the data processing necessary (Creating/Deleting NPA-NXXs, updating Subscription Versions appropriately) to ensure reliable representation of ported telephone number data used in call processing leading up to, during and after an NPA Split has occurred.

Introduction

In the case of emergency updates to NPA Split information, certain NPAC Operations personnel have the ability to manually enter all required NPA Split information into the NPAC Administrative Interface so as to ensure successful NPA Split processing within the NPAC SMS

For an impending NPA split, there is **no** communication between each SOA and the NPAC via an electronic interface (SOA, LSMS, or NPAC Administrative Interface) other than providing the NPAC with the new network data (LRNs), if applicable. The NPAC will update its subscription version records when permissive dialing starts to the new NPA. During the permissive dialing period the NPAC will accept messages with either old or new NPA but broadcasts/downloads with the new NPA only. In addition, all notifications and responses to the SOA system will contain the new NPA only during the permissive dialing period regardless of whether the SOA system is using the old or new NPA in its requests to the NPAC SMS. If a delete request is received, it is broadcast with the new NPA. The subscription version ID that the NPAC SMS is aware of for the TN is used in the messages.

Based on information from the industry source, the service providers will update their networks/LSMS to accommodate the permissive dialing period and will update the data in their networks/LSMS after permissive dialing ends. There is **no** communication from the NPAC to cause these updates to occur. No assumptions are made about what the LSMS does during the permissive period to track the NPA-NXX split for a subscription version.

After permissive dialing ends, the NPAC removes any old NPA-NXXs and/or NPA-NXX-Xs related to the NPA Split that are no longer valid, and broadcasts these network data deletes to the appropriate SOAs/LSMSs. Additionally, the service providers can remove any old LRNs that are no longer valid due to the split, if any, via an electronic interface (SOA, LSMS, or NPAC Administrative Interface).

1.2.11 Business Days/Hours

For support of service providers that have different needs for business hours and days available for porting, two types of business days/hours have been defined in the NPAC SMS. The two types are long and short business days/hours.

The following table illustrates the outcome of business hours/days to be used based on the possible combinations:

| New Service Provider | OLD Service Provider | | | |
|------------------------|------------------------|--|--|--|
| | Business Type | Short | Long (Non-Simple Port) | Long (Simple Port) |
| | Short | When both the old and new service providers support short business days/hours for a subscription version port short business days/hours will be used. No action is necessary by either the old or new service provider operations personnel. | When the new service provider supports short business days/hours and the old service provider supports long business days/hours for a subscription version port short business days/hours will be used. The old service provider who supports the long business days/hours will have to recognize that the short business days/hours are being used instead of the expected long business days/hours. | When the new service provider supports short business days/hours and the old service provider supports long business days/hours for a subscription version port, <i>and the port is designated as simple, medium business days/hours will be used.</i> The old service provider who supports the long business days/hours will have to recognize that the medium business days/hours are being used instead of the expected long business days/hours. |
| Long (Non-Simple Port) | Long (Non-Simple Port) | When the new service provider supports long business days/hours and the old service provider supports short business days/hours for a subscription version port short business days/hours will be used. The new service provider who supports the long business days/hours will have to recognize that the short timers are being used instead of the expected long timers. | When both the old and new service providers support long timers for a subscription version port long timers will be used. No action is necessary by either the old or new service provider operations personnel. | When both the old and new service providers support long business days/hours for a subscription version port long business days/hours will be used. No action is necessary by either the old or new service provider operations personnel. |

Introduction

| New Service Provider | OLD Service Provider | | | |
|----------------------|----------------------|---|--|--|
| | Business Type | Short | Long (Non-Simple Port) | Long (Simple Port) |
| | Long (Simple Port) | <p>When the new service provider supports short business days/hours and the old service provider supports long business days/hours for a subscription version port, <i>and the port is designated as simple</i>, medium business days/hours will be used.</p> <p>The old service provider who supports the long business days/hours will have to recognize that the medium business days/hours are being used instead of the expected long business days/hours.</p> | <p>When both the old and new service providers support long business days/hours for a subscription version port long business days/hours will be used.</p> <p>No action is necessary by either the old or new service provider operations personnel.</p> | <p>When both the old and new service providers support long business days/hours for a subscription version port, <i>and the port is designated as simple</i>, medium business days/hours will be used.</p> <p>No action is necessary by either the old or new service provider operations personnel.</p> |

Table 1-1 Business Day/Hour Behavior

1.2.12 Timer Types

For support of service providers that have different needs for timers available for porting, three types of timers have been defined in the NPAC SMS. The three types are long, medium and short timers.

The following table illustrates the outcome of timers to be used based on the possible combinations:

| New Service Provider | OLD Service Provider | | | |
|----------------------|----------------------------------|---|--|---|
| | Timer Type | Port Out- Short | Port Out- Long (Non-Simple Port) | Port Out- Long (Simple Port) |
| | Port In – Short | When both the old and new service providers support short timers for a subscription version port short timers will be used. No action is necessary by either the old or new service provider operations personnel. | When the new service provider supports short timers and the old service provider supports long timers for a subscription version port long timers will be used. The new service provider who supports the short timers will have to recognize that the long timers are being used instead of the expected short timers. | When the new service provider supports short timers and the old service provider supports long timers for a subscription version port, <i>and the port is designated as simple</i> , medium timers will be used. The new service provider who supports the short timers will have to recognize that the medium timers are being used instead of the expected short timers. |
| | Port In – Long (Non-Simple Port) | When the new service provider supports long timers and the old service provider supports short timers for a subscription version port long timers will be used. The old service provider who supports the short timers will have to recognize that the long timers are being used instead of the expected short timers. | When both the old and new service providers support long timers for a subscription version port long timers will be used. No action is necessary by either the old or new service provider operations personnel. | When both the old and new service providers support long timers for a subscription version port long timers will be used. No action is necessary by either the old or new service provider operations personnel. |
| | Port In- Long (Simple Port) | When the new service provider supports short timers and the old service provider supports long timers for a subscription version port, <i>and the port is designated as simple</i> , medium timers will be used. The new service provider who supports the short timers will have to recognize that the medium timers are being used instead of the expected short timers. | When both the old and new service providers support long timers for a subscription version port long timers will be used. No action is necessary by either the old or new service provider operations personnel. | When both the old and new service providers support long timers for a subscription version port <i>and the port is designated as simple</i> , medium timers will be used. No action is necessary by either the old or new service provider operations personnel. |

Table 1-2 Timer Type Behaviour

1.2.13 Recovery Functionality

The NPAC SMS provides a mechanism that allows a Service Provider to recover messages sent to either the SOA or LSMS, during a period of time that the Service Provider was not available to receive messages from the NPAC SMS

- The CMIP Interface recovery mechanism (also referred to as resynchronization) is initiated when a Service Provider's SOA or LSMS re-associates to the NPAC SMS, by setting the recovery mode indicator to TRUE on the Access Control structure, then requests the recovery of missed messages, by requesting the missed Network Data, Subscription Versions and/or Notifications
- The XML Interface does not have a recovery mechanism as messages are retried until successful (therefore, resynchronization is not a concept that is available over the XML Interface)

The SOA requests network data and notification data for a specific period of time from the NPAC SMS, which is sent by the NPAC SMS as requested. The NPAC SMS will send the recovery data requested based on the Service Provider's Linked Replies Indicator setting (separate indicators for SOA and LSMS). If the Linked Replies Indicator is set to TRUE the NPAC SMS will send the updates in smaller, linked messages (e.g., groups of 50 at a time). If the Linked Replies Indicator is set to FALSE the NPAC SMS will send the updates in a single larger, non-linked message. In the case of linked replies, data is sent in multiple linked M-ACTION replies, followed by an "empty" non-linked normal response (indicating the end of the linked reply data). During the recovery process, new messages are queued on the NPAC SMS. Additionally, during the recovery process, the "x by y" retry functionality (where "x" is the number of attempts, and "y" is the interval in number of minutes in between attempts) continues on the NPAC SMS, but message sending is suspended to the SOA, and the retry attempts counter is not decremented, as long as the SOA is still in recovery mode. Once the recovery is finished, the SOA sends a recovery complete message to the NPAC SMS, which in turn triggers the NPAC SMS to send the previously queued messages to the SOA, at the next normally scheduled retry interval. At the completion of sending the previously queued messages, the interaction between the SOA and the NPAC SMS resumes for normal message processing.

The LSMS recovery functionality works similar to the SOA, with the addition of recovering subscription data.

Service Provider systems may implement an optional recovery method called, "Send What I Missed" (SWIM). This implementation uses the existing recovery messages, and incorporates a new attribute (SWIM, rather than a time range). When the NPAC SMS receives a SWIM recovery request it issues a SWIM recovery response that contains only the messages that were previously *missed* by the requesting Service Provider system. Linked Reply functionality is utilized in the SWIM responses, so a Service Provider system must support that feature as well. SWIM improves the efficiency of recovery processing for the NPAC SMS and Service Providers because guesswork of determining a recovery timeframe that includes the actual messages that were missed is eliminated.

1.2.13.1 Network Data Recovery

Network Data Recovery in the NPAC SMS allows a Service Provider for both SOA and LSMS to capture, via a recovery process, all network data downloads that were missed during a downtime period for the Service Provider. The processing steps for this functionality include:

1. The Service Provider system sends a network data recovery request to the NPAC
2. The NPAC takes the time range in the requested criteria, and compares the number to the current tunable value
3. If the time range exceeds the tunable value, a DownloadReply is returned to the SP system with the status field populated with value 2, signifying "time-range-invalid". No network data will be included with this reply.
4. When an SP system sees this response, the suggested behavior is to reduce the time range requested in the network data recovery action and re-issue the request.

Introduction

NOTE: Alternatively, a Service Provider system may issue a SWIM recovery request and recover only the messages that were previously *missed* by the Service Provider system or a record-based recovery request to recover a range of data missed during a downtime period. These types of recovery requests do not require a time range.

1.2.13.2 Subscription Data Recovery

Subscription Data Recovery in the NPAC SMS allows a Service Provider's LSMS to capture, via a recovery process, all subscription data downloads that were missed during a downtime period for the Service Provider. The processing steps for this functionality include:

- 1 The Service Provider system sends a subscription data recovery request to the NPAC.
- 2 The NPAC takes the time range in the requested criteria, and compares the number to the current tunable value.
- 3 If the time range exceeds the tunable value, a DownloadReply is returned to the SP system with the status field populated with value 2, signifying "time-range-invalid". No subscription data will be included with this reply.
- 4 When an SP system sees this response, the suggested behavior is to reduce the time range requested in the subscription data recovery action and re-issue the request.

NOTE: Alternatively, a Service Provider system may issue a SWIM recovery request and recover only the messages that were previously *missed* by the Service Provider system or a record-based recovery request to recover a range of data missed during a downtime period. These types of recovery requests do not require a time range.

1.2.13.3 Notification Recovery

Notification Recovery in the NPAC SMS allows a Service Provider for both SOA and LSMS to capture, via a recovery process, all notifications that were missed during a downtime period for the Service Provider. The processing steps for this functionality include:

- 1 The Service Provider system sends a notification recovery request to the NPAC.
- 2 The NPAC retrieves the records that match the requested criteria, and compares the number to the current tunable value.
- 3 If the number of records exceeds the tunable value, a NetworkNotificationRecoveryReply is returned to the SP system with the status field populated with value 3, signifying "criteria-too-large". No notifications will be included with this reply.
- 4 When an SP system sees this response, the suggested behavior is to reduce the time range requested in the notification recovery action and re-issue the request.

NOTE: Alternatively, a Service Provider system may issue a SWIM recovery request and recover only the messages that were previously *missed* by the Service Provider system. This type of recovery request does not require a time range.

1.2.13.4 Service Provider Data Recovery

Service Provider Data Recovery in the NPAC SMS allows a Service Provider for both SOA and LSMS to capture, via a recovery process, all Service Provider data updates that were missed during a downtime period. The processing steps for this functionality include:

- 1 The Service Provider system sends a service provider data recovery request to the NPAC.
- 2 The NPAC takes the time range in the request criteria, and compares the number to the current tunable value.
- 3 If the time range exceeds the tunable value, a DownloadReply is returned to the SP system with the status field populated with value 2, signifying "time-range-invalid". No service provider data will be included with this reply.

Introduction

- 4 When an SP system sees this response, the suggested behavior is to reduce the time range requested in the service provider data recovery action and re-issue the request

NOTE: Alternatively, a Service Provider system may issue a SWIM recovery request and recover only the messages that were previously *missed* by the Service Provider system or a record-based recovery request to recover a range of data missed during a downtime period. These types of recovery requests do not require a time range.

1.2.14 Number Pooling Overview

The National Number Pooling approach includes the following:

- 1 Pre-Port 1K Blocks to a single switch (i.e., all Pooled TNs contain same LRN)
- 2 EDR (Efficient Data Representation) is captured through the use of “1K Blocks” in the NPAC, and over the SOA-to-NPAC and NPAC-to-LSMS interfaces
- 3 The NPA-NXX-X Holder Information in the NPAC is a representation of the 1K Block managed by the Pooling Administrator, and represented in the LERG Routing Guide
- 4 The NPAC Customer SOA NPA-NXX-X Indicator in the NPAC Customer Data Model will be added to indicate whether or not the Service Provider accepts NPA-NXX-X downloads from the NPAC (TRUE = yes, FALSE = no) to their SOA via the SOA-to-NPAC SMS Interface
- 5 The NPAC Customer LSMS NPA-NXX-X Indicator in the NPAC Customer Data Model will be added to indicate whether or not the Service Provider accepts NPA-NXX-X downloads from the NPAC (TRUE = yes, FALSE = no) to their LSMS via the NPAC SMS-to-LSMS Interface
- 6 The NPAC Customer Data Model (logical) and Service Provider Profile (physical) refer to the same information
- 7 The NPA-NXX-X Holder Information is broadcast over the SOA-to-NPAC SMS Interface to all Service Providers in that NPAC region (exclusive of those that have filters for that NPA or NPA-NXX, and those who have a SOA NPA-NXX-X indicator in the Customer Data Model set to FALSE), for the block allocation of NPA-NXX-X data to the NPA-NXX-X Holder
- 8 The NPA-NXX-X Holder Information is broadcast over the NPAC SMS-to-Local SMS Interface to all Service Providers in that NPAC region (exclusive of those that have filters for the NPA or NPA-NXX, and those who have an LSMS NPA-NXX-X indicator in the Customer Data Model set to FALSE), for the block allocation of NPA-NXX-X data to the NPA-NXX-X Holder
- 9 The NPA-NXX-X Holder Information’s “Effective Date” is the date the LERG Routing Guide, the Pooling Administrator, and the NPAC, consider to be the “ownership switchover” date for the 1K Block from the Code Holder (NPA-NXX owning SP) to the Block Holder (NPA-NXX-X owning SP)
- 10 At the time of NPA-NXX-X creation, the NPAC will check for “pending-like, no-active” SVs or “pending-like Port-To-Original” SVs where the Code Holder SPID and the Block Holder SPID are NOT the same value. If any are found, the NPAC will reject the creation of this NPA-NXX-X. An error message will be generated for the NPAC personnel. Additionally, the NPAC Personnel will be able to view the discrepant TNs (on the screen in the *Pending-Like No-Active Subscription Version* and *Pending-Like Port-to-Original Subscription Version REPORT* format), then be able to select multiple output destinations for the report, or exit the NPA-NXX-X Creation and continue with other GUI activities
- 11 The Pending-Like No-Active Subscription Version and Pending-Like Port-to-Original Subscription Version report will be available to NPAC personnel. The report will contain TN, Old SPID, New SPID, Due Date, and Status
- 12 The recipients of the Pending-Like No-Active Subscription Version and Pending-Like Port-to-Original Subscription Version report (e.g., Pooling Administrator, Code Holder) will have their own M&P (outside of

Introduction

- NPAC) to clean up these SVs (either cancel or activate) Once they are cleaned up, NPAC personnel will attempt the NPA-NXX-X creation again
- 13 Once the NPA-NXX-X has been created on the NPAC, the Code Holder is allowed to perform intra-service provider ports If TNs were missed during the Code Holder's pre-donation intra-port activities, then both the Code Holder and NPAC personnel are allowed to perform these intra-service provider port creates of SVs with no previously active SV, on behalf of the Code Holder The NPAC will allow the Code Holder, via the SOA or the LTI, and NPAC personnel, via the OpGUI, to create these LISP ports up to the effective date (11:59p of the day prior to the effective date), and to activate these LISP ports up to the Block's activation date/time The Code Holder can also assist in the activation of the LISP ports up to the Block's activation date/time
 - 14 Once the NPA-NXX-X's Effective Date has been reached, but prior to the Block's activation, snapback messages will go to the Block Holder, and default routing will be the responsibility of the Code Holder The exception to this is during the de-pool process for the NPA-NXX-X (see #31 below)
 - 15 Once the Block has been created (the record exists in the NPAC SMS and the Creation Timestamp in the Object has been set) in the NPAC, either from a scheduled event on the NPAC, or from a Service Provider SOA sending up the Block, then NPAC processing considers the Block to be "activated" for the Block Holder, and all snapback messages and default routing will go to the Block Holder
 - 16 The Block Holder Information is broadcast over the NPAC-to-LSMS interface
 - 17 The Block Holder Information's "Activation Timestamp" is the date/time the NPAC broadcasts block data to the applicable LSMSs Only at this point in time are all SPs notified of the "ownership switchover" date for the 1K Block from the Code Holder (NPA-NXX owning SP) to the Block Holder (NPA-NXX-X owning SP)
 - 18 Block Create messages over the SOA-to-NPAC SMS Interface will set the SOA Origination to TRUE
 - 19 The Block Holder Information's SOA notification is broadcast over the SOA-to-NPAC Interface, when the SOA Origination on the Block record is set to TRUE
 - 20 At the time of Block creation by the **NPAC** (attempted on or after the NPA-NXX-X's Effective Date), the NPAC will check for "pending-like, no-active" SVs If any are found, the NPAC will reject the creation of this Block A unique alarmable error message (new error message and error number for Block) will be generated and alarm NPAC personnel
 - 21 At the time of Block creation by the **SP's SOA** (attempted on or after the NPA-NXX-X's Effective Date), the NPAC will check for "pending-like, no-active" SVs in cases where the Code Holder SPID and the Block Holder SPID are NOT the same value If any are found, the NPAC will reject the creation of this Block A unique alarmable error message (new error message and error number for Block, but no alarm to NPAC Personnel) will be generated and sent back to the SP's SOA A new M&P will require the SP to contact NPAC personnel (USA) and request the generation of the Pending-Like No-Active Subscription Version and Pending-Like Port-to-Original Subscription Version report
 - 22 The Pending-Like No-Active Subscription Version and Pending-Like Port-to-Original Subscription Version report will be created and will contain TN, Old SPID, New SPID, Due Date, and Status
 - 23 The recipients of the Pending-Like No-Active Subscription Version and Pending-Like Port-to-Original Subscription Version report (e.g., Pooling Administrator, Code Holder) will have their own M&P (outside of NPAC) to clean up these SVs (either cancel or activate) by the Code Holder and the NPAC Personnel Once they are cleaned up, NPAC personnel will attempt the Block creation again (if it is NPAC initiated), or contact the Block Holder SP and inform them that they could re-submit the Block request
 - 24 If during the broadcast of the Pooled Data, one or more Service Providers cause the Block to go into a Partial Failure or Failed status, the NPAC will generate a unique alarmable message, and NPAC Personnel will be notified of the error, only when the SOA Origination is FALSE (if value is TRUE, existing M&Ps for partial failure or failed conditions will be used) M&P will be established to have NPAC Personnel resolve the broadcast failures with the Service Providers on the Block's Failed SP List
 - 25 The NPAC will execute a background process, once a day, to check for Block completeness During this background process, the NPAC will check for active blocks that haven't been verified to contain 1000 SVs

Introduction

- (combination of POOL, LISP, LSPP) for that Block. This is designed to capture any “disconnect requests that were sending on its way to old”, which may result in an orphan TN that does NOT have an Active SV. This background process will be run for the first time within 24 hours of Block Creation (with an Active status), and once every 24 hours thereafter for incomplete Blocks. Once all 1000 TNs have been accounted for in the NPAC, this Block will no longer be checked by the NPAC.
- 26 The NPAC will manage the synchronization of, and maintain the integrity of, the data between a Block and the subordinate Pooled Subscription Versions (used for internal NPAC processing and TN query responses only) within the Block. This means that, at all times, the LRN and GTT routing data for the Block and all SVs with LNP Type of POOL within the 1K Block, will contain the same values. The status for the Block and status for each SV with LNP Type of POOL within the 1K Block, may not always contain the same value. The matrix to coordinate the status is found in the detailed requirements. The failed SP List for the Block and Failed SP List for each SV with LNP Type of POOL within the 1K Block, may not always contain the same Service Providers. The matrix to coordinate the various Failed SP Lists is found in the detailed requirements.
 - 27 Once a Block is “active”, the routing data can be modified. This may be performed by NPAC Personnel using the NPAC OpGUI, Service Provider Personnel using the NPAC Low-tech Interface, or Service Provider via the SOA-to-NPAC SMS Interface.
 - 28 At the time of NPA-NXX-X deletion (i.e., de-pool), the NPAC will check for “pending-like, with Active POOL” SVs, or “pending-like, port-to-original” SVs. If any are found, the NPAC will reject the Deletion of this NPA-NXX-X. An error message will be generated for the NPAC personnel. Additionally, the NPAC Personnel will be able to view the discrepant TNs (on the screen in the *Pending-Like With Active POOL Subscription Version and Pending-Like Port-To-Original REPORT* format), then be able to select multiple output destinations for the report, or exit the NPA-NXX-X Deletion and continue with other GUI activities.
 - 29 The Pending-Like With Active POOL Subscription Version and Pending-Like Port-to-Original Subscription Version report will be available to NPAC personnel. The report will contain TN, Old SPID, New SPID, Due Date, and Status.
 - 30 The recipients of the Pending-Like With Active POOL Subscription Version and Pending-Like Port-to-Original Subscription report (e.g., Pooling Administrator, Block Holder) will have their own M&P (outside of NPAC) to clean up these SVs (either cancel or activate). Once they are cleaned up, NPAC personnel will await notification from the Pooling Administrator prior to attempting the NPA-NXX-X deletion again.
 - 31 The NPAC performs a “cascading delete” when processing an NPA-NXX-X Deletion. The first step is sending deletes of Block data to LSMSs. Once all LSMSs have successfully deleted the Pooled data (the status of all pooled SVs and the Block are Old, and both Failed SP Lists are empty), the NPA-NXX-X is deleted. Similar to the NPA-NXX-X Creation, the NPA-NXX-X Deletion is broadcast to the appropriate Service Providers, based on the values in their NPA-NXX-X Indicators.
 - 32 During the de-pooling process, the vacant number treatment responsibility and snapback for TN re-assignment notifications have unique behavior, once the Block has migrated to a status of Old. As defined in #14 above, snapback messages will go to the Block Holder, and default routing will be the responsibility of the Code Holder, once the NPA-NXX-X's Effective Date has been reached. However, in this de-pooling situation, both snapback messages and default routing responsibility will be the Code Holder. So, even though the NPA-NXX-X still exists, it has the same behavior as the “pre-effective date” NPA-NXX-X situation.
 - 33 Once the Block has been deleted in the NPAC, then NPAC processing considers the Block to be “deleted” for the Block Holder, and all snapback messages and default routing will go to the Code Holder. Additionally, the Block is now available to be allocated to another Service Provider.
 - 34 For NPA Split processing, at the start of the Split, the NPAC SMS will automatically create a New NPA-NXX-X to correspond to the Old NPA-NXX-X, and will reject the NPA Split request if the New NPA-NXX-X already exists at the time of the NPA Split entry. The NPAC will remove the New NPA-NXX-X and convert the Block and SVs back to the Old NPA-NXX, if the New NPA-NXX is removed from the NPA Split, prior to the end of PDP. When adding an NPA-NXX-X during an NPA Split, the NPAC will automatically add a corresponding New/Old NPA-NXX-X for an NPA-NXX involved in a Split. During PDP, the NPAC will treat

Introduction

Block data similar to the treatment of SV data (i.e., either the Old or New NPA-NXX can be sent to the NPAC, but the NPAC will broadcast the New NPA-NXX)

35 DELETED

36 The two new objects that will be broadcast over the interface include the NPA-NXX-X (1K Block) block allocation, and Block for Local SMSs that represent the 1000 TNs of POOL'ed numbers as the 1K Block

37 The basis for the National Number Pooling requirements was the Illinois Number Pooling NPAC Release 1.4. The Number Pooling Delta document, *National Number Pooling requirements*, represents the requirements for National Number Pooling functionality.

The following table portrays “vacant number treatment” responsibility and “snapback for TN re-assignment” notifications throughout each phase of number pooling, once the Block has been donated to the Pooling Administrator:

| Vacant Number Treatment | Pre effective date | post effective date | post Block activation | during Block de-pool |
|-------------------------------|--------------------|---------------------|-----------------------|----------------------|
| Contaminated disconnect | Code holder | Code holder | Block holder | Code holder |
| Non-contaminated | Code holder | Code holder | Block holder | Code holder |
| Snapback for TN re-assignment | | | | |
| Contaminated disconnect | Code holder* | Block holder | Block holder | Code holder* |
| Non-contaminated | N/A | N/A | Block holder | N/A |

Table 1-3 Vacant Number Treatment/Snapback Notification

* = Code Holder receives a notification but CANNOT reassign this TN

Note: for the last column (during Block de-pool), the behavior is the same as the pre-effective date column. A block may still exist in the NPAC SMS with a status of Old. At the time of de-pooling, the Block goes back to the Pooling Administrator and is awaiting re-assignment to the next Block Holder. The NPA-NXX-X may also exist in the NPAC SMS until a Block is successfully deleted from all Local SMSs.

1.2.15 Time References in the NPAC SMS

Time references in the NPAC SMS can be confusing because multiple time zones are involved across the seven US regions, as well as the Canadian region. Additionally, the universal time zone (UTC/GMT) is also used. The descriptions below are designed to point out the various time references that are used throughout the system.

Universal Time Zone – As a general rule, the NPAC SMS application runs on the universal time zone. The following items use UTC/GMT:

- 1 NPAC DB (all timestamp fields)
- 2 Mechanized interface messages (SOA and LSMS)
- 3 NPAC timers (short, medium and long)
- 4 NPAC parameters
 - a Short Business Day Start Time

Introduction

- b Medium Business Day Start Time
- c Long Business Day Start Time
- d Conflict Restriction Window (18:00/17:00 GMT)
- 5 NPA Split Permissive Dial Dates (the Time portion)
- 6 NPAC reports
- 7 NPAC BDD files

NPAC GUI – The NPAC GUI (both administrative GUI for USAs and LTI GUI for NPAC customers) is based on the setting for each specific user's PC. Therefore, even though NPAC data is stored in UTC/GMT, it is converted and displayed for a user in their local time zone as defined in their PC setting.

The only exception to this rule is on the administrative GUI, for the following data. In both of these cases, the data is displayed in Central Time.

- 1 NPA-NXX-X Effective Date
- 2 Number Pool Block Scheduled Activation Date

Business Hours/Days – The definition of Business Hours/Days in the NPAC SMS are defined using a combination of three variables. Wireline Service Providers typically use SHORT variables, and Wireless Service Providers typically use LONG variables.

| | | |
|-------------------------------------|--------------------------------|---|
| Wireline | Short Business Days | Monday – Friday (five days) |
| | Short Business Day Start Time | 13:00/12:00 GMT |
| | Short Business Day Duration | 12 hours |
| Wireless | Long Business Days | Sunday – Saturday (seven days. Canadian region is just six days, Monday-Saturday) |
| | Long Business Day Start Time | 14:00/13:00 GMT (for eastern regions) |
| | | 15:00/14:00 GMT (for central regions) |
| | | 15:00/14:00 GMT (for Canadian region) |
| | | 16:00/15:00 GMT (for mountain region) |
| | | 17:00/16:00 GMT (for pacific region) |
| | Long Business Day Duration | 12 hours |
| Wireline or Inter-modal simple port | Medium Business Days | Monday – Friday (five days) |
| | Medium Business Day Start Time | 12:00/11:00 GMT (for eastern regions) |
| | | 13:00/12:00 GMT (for central regions) |
| | | 13:00/12:00 GMT (for Canadian region) |
| | | 14:00/13:00 GMT (for mountain region) |
| | | 15:00/14:00 GMT (for pacific region) |
| | Medium Business Day Duration | 17 hours |

Table 1-4 Business Hours/Business Days

Introduction

Using this information, the region equivalents are defined by the table below:

| Region | SPs using Short Hours/Days | SPs using Medium Hours/Days | SPs using Long Hours/Days |
|--------|----------------------------|-----------------------------|-----------------------------|
| NE | Monday – Friday, 8a-8p ET | Monday – Friday, 7a-12a ET | Sunday – Saturday, 9a-9p ET |
| MA | Monday – Friday, 8a-8p ET | Monday – Friday, 7a-12a ET | Sunday – Saturday, 9a-9p ET |
| SE | Monday – Friday, 8a-8p ET | Monday – Friday, 7a-12a ET | Sunday – Saturday, 9a-9p ET |
| MW | Monday – Friday, 7a-7p CT | Monday – Friday, 7a-12a CT | Sunday – Saturday, 9a-9p CT |
| SW | Monday – Friday, 7a-7p CT | Monday – Friday, 7a-12a CT | Sunday – Saturday, 9a-9p CT |
| WE | Monday – Friday, 6a-6p MT | Monday – Friday, 7a-12a MT | Sunday – Saturday, 9a-9p MT |
| WC | Monday – Friday, 5a-5p PT | Monday – Friday, 7a-12a PT | Sunday – Saturday, 9a-9p PT |
| CA | Monday – Friday, 7a-7p CT | not currently supported | Monday – Saturday, 9a-9p CT |

Table 1-5 Short/Medium/Long Hours/Days

Concurrence Windows/Timers – Various porting activities initiated by one Service Provider require some type of concurrence from a second Service Provider. This concurrence is defined as performing some activity within *x number of business hours*. At the time an activity occurs in the NPAC that requires the use of a window/timer, the future expiration time is calculated and stored, based on the NPAC settings in the table above, at the time of the activity. These windows/timers will then expire based on the pre-calculated date/time.

Standard Time/Daylight Time – The following NPAC tunables are adjusted twice a year for Standard/Daylight

- 1 Short Business Day Start Time
- 2 Medium Business Day Start Time
- 3 Long Business Day Start Time
- 4 Conflict Restriction Window

A note regarding concurrence windows/timers: As mentioned in the previous section, a timer is not a meter that “runs” only during the Business Day intervals, but rather is a calculation in GMT of the timer’s expiration date/time. When the Short, Medium or Long Business Day Start Time, or Conflict Restriction Window, is adjusted twice each year to reflect the daylight savings adjustment in local time (of the predominant time zone within each region), a timer that started just prior to the daylight savings adjustment will continue to “run” as if the adjustment had not been made. So in terms of local time, each Spring for a few days certain timers will appear to run for one hour too short and each Fall for a few days these same timers will appear to run for one hour too long.

1.2.16 SV Type and Alternative SPID in the NPAC SMS

With implementation of software release 3.3, the NPAC SMS will provide an SV Type indicator in each SV and Pooled Block record. This indicator will initially distinguish every TN and Pooled Block as being served by Wireline, Wireless, Class 2 Interconnected VoIP, VoWiFi service, Prepaid Wireless, or Class 1 Interconnected VoIP. The SV Type indicator will be able to distinguish additional “types” as deemed necessary in the future by adding additional values. This information will be provisioned by the SOA and broadcast to the LSMS upon initial creation of the SV or Pooled Block and upon modification of the SV Type for those SOA and LSMS associations optioned “on” to send and receive this data.

Introduction

The SV Type attribute will be populated by the SP Type, if this attribute is not supported by the Service Provider. The SV Type attribute must be provided if supported by the Service Provider.

The NPAC SMS shall provide an Alternative SPID field for each SV and Pooled Block record. This new field shall identify (if applicable) a second service provider – either a facility-based provider or reseller, acting as a non facility-based service provider associated with each TN or Pooled Block via their 4-digit SPID. The Alternative SPID must be a valid SPID defined in the NPAC SMS database. Alternative SPID is an optional attribute in a SV or Pooled Block record, even if it is supported by the Service Provider.

With implementation of software release 3.3.3.5 (NANC 436), the NPAC SMS shall provide a Last Alternative SPID field for each SV and Pooled Block record. This new field shall identify (if applicable) a subtending service provider that has a retail relationship with the end user. The Last Alternative SPID must be a valid SPID defined in the NPAC SMS database. Last Alternative SPID is an optional attribute in a SV or Pooled Block record, even if it is supported by the Service Provider.

1.2.17 Alternative End User Location and Alternative Billing ID in the NPAC SMS

With implementation of software release 3.3.3.2 (NANC 436), the NPAC SMS shall provide Alternative End User Location and Alternative Billing ID fields for each SV and Pooled Block record. These new fields shall identify (if applicable) an alternative value to the existing End User Location and Billing ID fields associated with each TN or Pooled Block. This information will be provisioned by the SOA and broadcast to the LSMS upon initial creation of the SV or Pooled Block and upon modification of these fields for those SOA and LSMS associations optioned “on” to send and receive this data. These alternative fields are optional attributes in a SV or Pooled Block record, even if it is supported by the Service Provider.

1.2.18 URIs in the NPAC SMS

With implementation of software release 3.3.3.5 (NANC 429, NANC 430, NANC 435), the NPAC SMS shall provide URI fields for each SV and Pooled Block record. These new fields shall identify (if applicable) a Voice URI, MMS URI, and/or SMS URI associated with each TN or Pooled Block. This information will be provisioned by the SOA and broadcast to the LSMS upon initial creation of the SV or Pooled Block and upon modification of the URIs for those SOA and LSMS associations optioned “on” to send and receive this data. The URIs are optional attributes in a SV or Pooled Block record, even if it is supported by the Service Provider.

1.2.19 Medium Timers for Simple Ports

With implementation of software release 3.3.4 (NANC 440, NANC 441) to implement functionality for FCC Order 09-41, the NPAC SMS will provide a new set of Timers (Medium) applicable to SV records for simple ports (wireline, intermodal).

In the Service Provider Profile, a new support tunable will be added. This indicator will identify whether or not an SP supports the use of the Medium Timers. This is needed because of the two-stage implementation (nine months for large carriers, and fifteen months for small carriers), as well as carriers that may obtain a waiver from the FCC on implementation.

1.2.19.1 Medium Timer Set

The Medium Timer set includes the following:

- Medium Initial Concurrence Timer (i.e., T1) – defaulted to three (3) NPAC business hours
- Medium Final Concurrence Timer (i.e., T2) – defaulted to three (3) NPAC business hours

Introduction

- Medium Conflict Restriction Window – defaulted to 21:00 in the predominate time zone (Mon-Fri, excluding NPAC-defined holidays, adjusted for Standard/Daylight) on the day before the due date (adjusted for Standard/Daylight)
- Medium Conflict Resolution Restriction Window – defaulted two (2) NPAC business hours
- Medium Initial Cancellation Acknowledgement Timer – defaulted to nine (9) NPAC business hours
- Medium Final Cancellation Acknowledgement Timer – defaulted to nine (9) NPAC business hours
- Medium Business Day Start – defaulted to 07 00 in the predominate time zone (Mon-Fri, excluding NPAC-defined holidays, adjusted for Standard/Daylight)
- Medium Business Day Duration – defaulted to 17 clock hours
- Medium Business Days – defaulted to Monday-Friday

The Medium Timer set will be used by the NPAC based on a combination of information provided by both SOAs (New SP and Old SP) and SP Profile settings of both SOAs. Timer Type and Business Type will be broadcast to the SOAs upon creation/concurrence of the SV (object creation notification and attribute value change notification), for those SOA associations optioned “on” to receive this data (Timer Type and Business Type). This new value for the existing attributes shall be added to the notification Bulk Data Download file, and be available to a Service Provider’s SOA. This new value for the existing attributes will be supported across the interface on an opt-in basis only and will be functionally backward compatible.

1.2.19.2 Medium Timer SV Attributes

The Medium Timer SV attributes are:

- New SP Medium Timer Indicator
- Old SP Medium Timer Indicator

If a SOA supports the New SP/Old SP Medium Timer Indicator (based on the Medium Timers Support Indicator setting), the new attribute must be sent up in their inter-SP SV Create message, otherwise the message will be rejected. If a SOA does not support the New SP/Old SP Medium Timer Indicator the new attribute must not be sent in the inter-SP SV Create message, if sent the message will be rejected. If a SOA that supports the New SP/Old SP Medium Timer Indicator sends up the new attributes in an intra-SP SV Create message, the attributes are ignored.

Since only the Old SP is in a definitive position to determine if a port is simple:

- Modify requests from the New SP for the New SP Medium Timer Indicator will be supported only until the Old SP sends their Create message.
- Modify requests from the Old SP for the Old SP Medium Timer Indicator will be supported until the port is activated.

Modifies of the Old or New Medium Timer Indicator will cause a restart to T1 when the NPAC has received a create message from only one service provider. If both create messages have been received, T1 will not be restarted. Because the T1 timer can be restarted, New Service Providers may need to be included in the notification of T2 expirations for Old Service Provider concurrence. A Service Provider notification priority category will be added to allow a Service Provider to opt-in on receiving T2 expiration notifications as the New Service Provider for lack of Old Service Provider concurrence. Sending a notification to the New Service Provider at T2 expiration avoids the need for the New Service Provider to track NPAC timers, which eliminates the need to inform the New Service Provider of a new timestamp when T1/T2 is restarted. In cases where a modify request was sent with the same value (true -> true, false -> false), a notification will still be sent (as done with current behavior on modifies to the same value), but the T1/T2 will not be cancelled, T1 will not be restarted, and neither Timer Type nor Business Type will be included in the notification.

The NPAC will use the values of the New SP/Old SP Medium Timer Indicators sent in the SV Create messages (or information in the SP Profile if not supported) to determine the usage of the Medium Timers for a given SV. This New SP/Old SP Medium Timer Indicator information will be broadcast to the SOAs upon creation/concurrence of

Introduction

the SV (object creation notification and attribute value change notification), for those SOA associations optioned “on” to send and receive this data (NANC 440, Medium Timers Support Indicator)

When both SPs support the Medium Timers Support Indicators, and the values specified by the New Service Provider and Old Service Provider are different, the value specified by the Old Service Provider will prevail (if necessary, the SV Timer Type and Business Type will be changed) Even though T1 and T2 concurrence timers have expired, the change is applicable because subsequent conflict or cancellation acknowledgement timers will use the value contained in the Timer Type attribute and Business Type attribute on the SV to determine conflict or cancellation duration This updated Timer Type and Business Type information will be sent to both the New Service Provider and the Old Service Provider in an Attribute Value Change notification If Old Service Provider does not send up a Create, the SV would remain with whatever value is specified in the New Service Provider Create These new attributes shall be added to the notification Bulk Data Download file, and be available to a Service Provider’s SOA These new attributes will be supported across the interface on an opt-in basis only and will be functionally backward compatible

All references in the Processing Rules below that refer to “Short” and “Long” relate to the Timer Type settings in the Service Provider’s Profile (Port-In Timer Type, Port-Out Timer Type)

Processing Rules where **both SPs do not support** the Medium Timers Support Indicator:

- BAU (Business As Usual)
- Short + Short = Short
- Everything else =Long

Processing Rules where **both SPs do support** the Medium Timers Support Indicator:

- NSP is Short, OSP is Short, SV is Short regardless of Indicators
- NSP is Short, OSP is Long, (Note: NSP Short/OSP Long, NSP Long/OSP Short, and NSP Long/OSP Long all have the same behavior)
 - NSP is First Create,
 - SOA Indicator on SV Create is F (non-simple), SV uses Long,
 - OSP is second Create,
 - SOA Indicator on SV Create is F (non-simple), SV remains Long
 - SOA Indicator on SV Create is T (simple), SV switches to Medium
 - OSP does not concur, SV remains Long
 - SOA Indicator on SV Create is T (simple), SV uses Medium,
 - OSP is second Create,
 - SOA Indicator on SV Create is F (non-simple), SV switches to Long
 - SOA Indicator on SV Create is T (simple), SV remains Medium
 - OSP does not concur, SV remains Medium
 - OSP is First Create,
 - SOA Indicator on SV Create is F (non-simple), SV uses Long,
 - NSP is second Create,
 - SOA Indicator on SV Create is F (non-simple), SV remains Long
 - SOA Indicator on SV Create is T (simple), SV remains Long
 - SOA Indicator on SV Create is T (simple), SV uses Medium,
 - NSP is second Create,
 - SOA Indicator on SV Create is F (non-simple), SV remains Medium
 - SOA Indicator on SV Create is T (simple), SV remains Medium
 - NSP is Long , OSP is Short, (Note: NSP Short/OSP Long, NSP Long/OSP Short, and NSP Long/OSP Long all have the same behavior)
 - NSP is First Create,
 - SOA Indicator on SV Create is F (non-simple), SV uses Long,
 - OSP is second Create,
 - SOA Indicator on SV Create is F (non-simple), SV remains Long
 - SOA Indicator on SV Create is T (simple), SV switches to Medium
 - OSP does not concur, SV remains Long

Introduction

- SOA Indicator on SV Create is T (simple), SV uses Medium,
 - OSP is second Create,
 - SOA Indicator on SV Create is F (non-simple), SV switches to Long
 - SOA Indicator on SV Create is T (simple), SV remains Medium
 - OSP does not concur, SV remains Medium
 - OSP is First Create,
 - SOA Indicator on SV Create is F (non-simple), SV uses Long,
 - NSP is second Create,
 - SOA Indicator on SV Create is F (non-simple), SV remains Long
 - SOA Indicator on SV Create is T (simple), SV remains Long
 - SOA Indicator on SV Create is T (simple), SV uses Medium,
 - NSP is second Create,
 - SOA Indicator on SV Create is F (non-simple), SV remains Medium
 - SOA Indicator on SV Create is T (simple), SV remains Medium
 - NSP is Long , OSP is Long, (Note: NSP Short/OSP Long, NSP Long/OSP Short, and NSP Long/OSP Long all have the same behavior)
 - NSP is First Create,
 - SOA Indicator on SV Create is F (non-simple), SV uses Long,
 - OSP is second Create,
 - SOA Indicator on SV Create is F (non-simple), SV remains Long
 - SOA Indicator on SV Create is T (simple), SV switches to Medium
 - OSP does not concur, SV remains Long
 - SOA Indicator on SV Create is T (simple), SV uses Medium,
 - OSP is second Create,
 - SOA Indicator on SV Create is F (non-simple), SV switches to Long
 - SOA Indicator on SV Create is T (simple), SV remains Medium
 - OSP does not concur, SV remains Medium
 - OSP is First Create,
 - SOA Indicator on SV Create is F (non-simple), SV uses Long,
 - NSP is second Create,
 - SOA Indicator on SV Create is F (non-simple), SV remains Long
 - SOA Indicator on SV Create is T (simple), SV remains Long
 - SOA Indicator on SV Create is T (simple), SV uses Medium,
 - NSP is second Create,
 - SOA Indicator on SV Create is F (non-simple), SV remains Medium
 - SOA Indicator on SV Create is T (simple), SV remains Medium

Anytime the NPAC sets the Timer Type to Medium for a port, the Business Type will also be set to Medium (e.g., Medium Timers, Medium Business Hours and Medium Business Days are assigned as a complete set)

1.2.20 Pseudo-LRN in the NPAC SMS

With implementation of software release 3.3.4.1 (NANC 442), the NPAC SMS shall provide pseudo-LRN capability for SV and Pooled Block records whereby these records contain a pseudo-LRN value rather than an active LRN value. Since pseudo-LRN SV/NPB data is not needed by LSMs for traditional voice routing, pseudo-LRN records will be broadcast only to an LSM that supports the pseudo-LRN value and is interested in pseudo-LRN data from the activating SPID.

1.2.20.1 Pseudo-LRN Behavior

With the introduction of the pseudo-LRN value, the NPAC will be updated to receive and broadcast intra-SP ports and NPB activations in the NPAC with a pseudo-LRN value (no behavior change for inter-SP ports):

- Inter-SP SVs:

Introduction

- port with active LRN continues current behavior
 - port with pseudo-LRN cannot be done
- Intra-SP SVs:
 - port with active LRN continues current behavior
 - port with pseudo-LRN can be done by NPA-NXX assignee on native number
 - port with pseudo-LRN cannot be done by NPA-NXX assignee with current active intra-port with active LRN
 - port with pseudo-LRN cannot be done on NPB with active LRN
 - port with pseudo-LRN can be done on NPB with pseudo-LRN
- Dash-X/NPBs:
 - block with active LRN can be done when no pseudo-LRN SVs exist within the 1K Block
 - block with pseudo-LRN can be done when the Block Holder SPID is also NPA-NXX assignee

Opted-in NPAC users will indicate their intent to create pseudo-LRN SVs and NPBs through their SOA by populating '000-000-0000' in the LRN field. Users that have not opted-in will receive errors indicating an invalid LRN if they attempt to create a pseudo-LRN record (maintaining backward compatibility).

SVs and NPBs cannot be modified in such a way that either populates the LRN of a previously pseudo-LRN record, or removes the LRN by converting an active LRN to the pseudo-LRN value. Changing an active record between an active LRN state and pseudo-LRN state always requires the creation of a replacement SV (by disconnecting the active LRN record and activating a pseudo-LRN record). This preserves backward compatibility for SOA and LSMS systems that do not opt-in, by ensuring that a single SV-ID does not switch states.

Opted-in NPAC users will be able to stipulate the SPIDs for which they receive pseudo-LRN records. The Pseudo-LRN Accepted SPID list will be based on a set of SPIDs selected by the opted-in NPAC user, and maintained by the NPAC administrator. NPAC will broadcast pseudo-LRN SVs and NPBs only to opted-in NPAC LSMSs, subject to SPID-based filters (Pseudo-LRN Accepted SPID List). LSMSs not opted-in to pseudo-LRN capability will not receive any broadcast for activate, modify, or disconnect of pseudo-LRN SVs and NPBs.

NPAC queries and BDDs will include pseudo-LRN records to opted-in SOAs and LSMSs, subject to SPIDs-based filters (Pseudo-LRN Accepted SPID List).

1.2.20.2 Operations with Pseudo-LRN Support Tunables

The following table describes various operations and the tunables used to determine messaging:

| Operation | A | B | C | D | E | F | G | H | I |
|---|---|---|---|---|---|---|---|---|---|
| Query via SOA | X | X | | | | | X | | |
| Query via LSMS | X | | X | | | | X | | |
| Query via LTI by SP Personnel | X | | | X | | | | | |
| Query via Admin GUI by NPAC Personnel | X | | | | | | | | |
| BDD (SV, DX, NPB) for SOA | X | X | | | | | X | X | |
| BDD (SV, DX, NPB) for LSMS | X | | X | | | | X | | X |
| Reports generated via LTI by SP Personnel | X | | | X | | | | | |
| Reports generated via Admin GUI by NPAC Personnel | X | | | | | | | | |

Introduction

| | | | | | | | | |
|---|---|---|---|--|---|---|---|--|
| SOA SV Notifications | X | X | | | X | | | |
| SOA NPB Notifications | X | X | | | X | X | | |
| SOA DX Downloads (create, modify, delete) | X | X | | | | | X | |
| LSMS DX Downloads (create, modify, delete) | X | | X | | | | X | |
| LSMS SV Downloads (create, modify, delete) | X | | X | | | | X | |
| LSMS NPB Downloads (create, modify, delete) | X | | X | | | | X | |

Table 1-6 Pseudo-LRN Tunables

A = Region Supports tunable
 B = SOA Supports P-LRN tunable
 C = LSMS Supports P-LRN tunable
 D = LTI Supports P-LRN tunable
 E = SOA Supports P-LRN Notifications tunable
 F = SOA Origination Flag on individual NPB
 G = SP P-LRN Accepted SPID List tunable
 H = SOA Supports Force P-LRN BDD tunable
 I = LSMS Supports Force P-LRN BDD tunable

1.2.21 Service Provider requested Notification Suppression

With implementation of software release 3.4.8 (NANC 458), the NPAC SMS shall provide notification suppression capability on a per request basis. It also allows a SPID to link together with another SPID for notification suppression. Any SPID desiring this linking functionality would be required to explicitly authorize the other SPID.

1.3 Background

Release 1.0

An industry task force was formed in Illinois in April 1995, pursuant to the Illinois Commerce Commission (ICC) Order on Customers First Plan (Docket 94-0096 dated April 7, 1995), to develop a permanent number portability solution for Illinois. During that year, the task force made significant progress in defining and resolving the issues related to implementing number portability. All North American regions for deployment in all North American Local Number Portability Regions then used the work done by the Illinois task force to move forward with LNP implementation. A group was formed under NANC called the LNPA Working Group that oversaw implementation issues and documentation clarifications to the FRS and IIS for Release 1.0.

Introduction

Midwest Region Number Pooling

To support number pooling in the Midwest Region requirements were developed and implemented. The requirements are included in Appendix F for completeness. If a service provider system is implementing Midwest Region Number Pooling then some of these requirements will supercede other requirements in this FRS document.

Release 2.0

The industry through work in the LNPA Working Group defined requirements for the next major release to be adopted by all regions. The Release 2.0 as agreed upon in all regions includes enhancements to the NPAC SMS for new functionality as well as modifications to existing functionality. The major enhancements include service bureau support and network data support for SOA systems as well as enhancements to support service providers implementing wireless number portability.

Release 3.0

Through the work of the LNPA Working Group, requirements for National Number Pooling were defined for Release 3.0 of the NPAC SMS. National Number Pooling is implemented as a replacement to the Midwest Region Number Pooling solution that was implemented as Release 1.4 of the NPAC SMS. This approach includes the optional use of a new Block object over the interface, such that the NPAC SMS now supports both the 1K Block of TNs using Subscription Versions and the new Block object, to represent a 1K block of pooled numbers. This approach is further defined in section 1.2.14 Number Pooling Overview, of this document.

Release 3.1

With the deployment of NPAC Release 3.0 in the Northeast region a SOA – NPAC Interface problem surfaced. The improved performance of NPAC Release 3.0 and the faster hardware platform that this software is running on is resulting in transactions being processed for broadcast to the industry quicker than the SOA – NPAC interface can transmit them. During peak periods the interface cannot support the volumes of notifications that the NPAC SMS is generating, thus there is a long delay in notification delivery that results in operational issues. There are several change orders that, together, have the potential of alleviating this problem. NeuStar and the LNPA Working Group has bundled these change orders together for NPAC Release 3.1.

Release 3.2

The industry through work in the LNPA Working Group defined requirements for the next release to be adopted by all regions. The Release 3.2 as agreed upon in all regions includes enhancements to the NPAC SMS for new functionality as well as modifications to existing functionality. The major enhancements include enhanced Bulk Data Download File processing capabilities, improved recovery functionality that supports the generation of linked reply messages over the NPAC SMS to SOA and/or LSMS interface, enhanced DPC/SSN value edits to ensure the data is formatted based on industry LNP standards, enhanced NPA Split processing that includes automated processing based on industry standard information, further Subscription Version processing capabilities, additional NPAC SMS edits to ensure that telephone numbers are not ported outside of a single LATA, and capabilities that will ease partial and full SPID migration (in the event of a purchase or merger between Service Providers).

Release 3.3

The industry through work in the LNPA Working Group defined requirements for the next release to be adopted by all regions. The Release 3.3 as agreed upon in all regions includes enhancements to the NPAC SMS for new functionality as well as modifications to existing functionality. The major enhancements include restriction of conflict resolution to alleviate inadvertent porting, improved recovery, flow control to assist with congestion situations, “un-do” cancel-pending SVs, improved abort behavior, BDD for notifications, performance improvements, resend exclusion, association heartbeat, application level error messages, and separate SOA association for notifications.

Release 3.3.4

The industry through work in the LNPA Working Group defined requirements for the next release to be adopted by all regions. The Release 3.3.4 as agreed upon in all regions includes enhancements to the NPAC SMS for new functionality to support FCC Order 09-41, One Business Day Simple Ports.

Introduction

Release 3.4

The industry through work in the LNPA Working Group defined requirements for the next release to be adopted by all regions. The Release 3.4 as agreed upon in all regions includes enhancements to the NPAC SMS for new functionality as well as modifications to existing functionality. The major enhancements include version ID rollover strategy, modification of NPA-NXX Effective Date, NPA-level filters, performance improvements, SPID Migration automation enhancements, validation of NPA-NXX ownership, notification enhancements, DPC edit enhancements.

Release 3.4.6

The industry through work in the LNPA Working Group defined requirements for the next release to be adopted by all regions. The Release 3.4.6 as agreed upon in all regions includes enhancements to the NPAC SMS for new functionality for an XML Interface.

1.4 Objective

The objective of this document is to uniquely identify the baseline end-user, functional requirements that define the LNP SMS supporting number portability

1.5 Assumptions

A1-1 Proportional Billing

The Service Providers will be billed in proportion to their usage of the services provided by the NPAC SMS

AR1-1 Service Provider ID

All NPAC Customers will obtain a unique Service Provider ID from a proper source

A1-2 Resource Accounting

The resource accounting measurements will not cause degradation in the performance of the basic functions of the NPAC SMS

AR3-1 Greenwich Mean Time

DELETED

AN3-4.1 NPA Split Information Source

The default information source for NPA Split processing shall be the NPA Split Load Flat File, which is processed automatically based on a housekeeping process

AR3-2 NPAC Administrative and SOA Low-Tech Interface Time

DELETED

AR3-3 System Tunable Time

DELETED

AR4-1.1 Service Provider ID

All NPAC Customers will obtain a unique Service Provider ID from a proper source

AR5-2 Conflict Resolution Tunable due date value

The time used for the conflict restriction tunable calculation relies on the time value specified in the New Service Provider due date

AR5-3 Changing of TN Range Notification Indicator while Notifications are Queued

In the event that the TN Range Notification Indicator is changed from TRUE to FALSE any notifications for multiple TNs that were already created and are in queue will be sent in the range format and in the event that the TN Range Notification Indicator is changed from FALSE to TRUE any notifications for multiple TNs that were already created and are in queue will be sent in the single format

Introduction

AR6-1 Range Activations

DELETED

AR6-2 Percent of Range Activations

DELETED

AR6-3 TN-to-Transaction Ratio

There is one TN per mechanized transaction as specified in R6-28 1, R6-28 2, R6-29 2, RR6-107, RR6-108, and RR6-109 (previously NANC 393, AR-New-1)

AR6-4 Transaction Definition

A mechanized transaction is a request/notification and its corresponding response (previously NANC 393, AR-New-2)

AR6-5 Peak Period Definition

Peak, as specified in R6-28 2 and R6-29 2, is defined as a five-minute period, and one peak can occur within any 60-minute window (previously NANC 393, AR-New-3)

AR6-6 Number of Local SMS Associated to the NPAC SMS

There are thirty (30) Local SMSs associated to the NPAC SMS as specified in RR6-109, related to the total NPAC SMS bandwidth for a single NPAC SMS region (previously NANC 393, AR-New-4)

A8-1 Service Provider Audits Issued Immediately

NPAC SMS will process audit requests from service providers immediately

AR10-1 Scheduled Downtime

NPAC initiated downtime as defined in R10-5 does not include downtime needed for software release updates initiated by or collectively agreed to by the Service Providers

A11-2 Accounting Measurements Will Not Degrade the Basic System Performance

The resource accounting measurements will not cause degradation in the performance of the basic functions of the NPAC

A3-5 Associated Service Provider Multiple Service Provider Ids

Associated service providers using SOA functionality from another primary service provider must use another service provider id if they choose to interact with the NPAC independently from the primary service provider for SOA functionality

1.6 Constraints

The following constraints shall be adhered to during the development of the software associated with the requirements within this document

Introduction

C1-1 Real Time Call Processing

The NPAC SMS is not involved in real time call processing

C1-2 Service Provider Activity Tracking

The NPAC SMS is not involved in facilitating or tracking Service Provider-to-Service Provider activities

CN2-1.1.1 Interactions between Service Providers are beyond the scope of the NPAC SMS

Processes for obtaining authorization from the customer to port a number are defined by the Service Providers. The NPAC is not involved in obtaining or verifying customer authorization. Details of steps in those processes do not involve the NPAC or NPAC SMS, and are beyond the scope of the NPAC SMS functionality.

CN2-1.3.1. Service provider network change activities are beyond the scope of the NPAC SMS

Details of steps in the processes that do not involve the NPAC or NPAC SMS, such as physical changes performed in the Service Provider's networks, are beyond the scope of the NPAC SMS functionality.

CN2-1.4.1 Service provider's internal activities are beyond the scope of this document

Details of steps in the processes that do not involve the NPAC or NPAC SMS, such as physical changes performed in the Service Provider's networks are beyond the scope of this document.

CN2.1.5.1. Service Provider's Network Change Validation Activities are beyond the scope of the NPAC SMS

Network testing performed by the Service Providers, such as testing of call processing and testing of Service Provider network elements, is beyond the scope of the NPAC SMS.

CN2-1.6.1 Service provider's internal activities are beyond the scope of this document

Details of steps in the processes that do not involve the NPAC or NPAC SMS, such as updates to data performed in the Service Providers network elements are beyond the scope of this document.

CN2-3.3.1 Service provider's repair activities are beyond the scope of the NPAC SMS

Details of steps in the repair processes that do not involve the NPAC or NPAC SMS, such as the customer's notification of problems, the Service Provider's analysis/troubleshooting activities and the Service Provider's repair activities are beyond the scope of the NPAC SMS functionality.

CN2.4.2.1. Service provider's conflict resolution activities are beyond the scope of the SMS NPAC

Details of steps in the processes that do not involve the NPAC or NPAC SMS, such as conflict resolution escalation and arbitration activities are beyond the scope of this document.

CN2-6.1.1 Interactions between Service Providers are beyond the scope of this document

Processes for obtaining authorization from the customer to port a number are defined by the Service Providers. The NPAC is not involved in obtaining or verifying customer authorization. Details of steps in those processes do not involve the NPAC or NPAC SMS, and are beyond the scope of this document.

Introduction

C3-1 Associated Service Provider Notification Aggregation

NPAC SMS aggregation of all messages over the SOA-to-NPAC SMS interface for primary and associated service provider ids will not be supported

2. Business Process Flows

The following process flow descriptions indicate how the NPAC SMS is used by the Service Providers in business processes associated with number portability. Specific requirements generated by the process flows are included in the appropriate sections later in the document. For the latest version of the LNP Process Flow Diagrams previously in Appendix A, refer to the NPAC website (www.npac.com).

The process flows supported by the NPAC SMS are:

- Service Provisioning
- Service Disconnection
- Service Repair
- Conflict and Conflict Resolution
- Disaster Recovery and Backup
- Service Order Cancellation
- Audit Requests
- Report Requests
- Data Administration Requests

2.1 Provision Service Process

This process flow defines the provisioning flow in which a customer ports a telephone number to a new Service Provider.

2.1.1 Service provider-to-service provider activities

The new Service Provider will notify the old Service Provider according to processes internal to the Service Providers.

CN2-1.1.1 Interactions between Service Providers are beyond the scope of the NPAC SMS

Processes for obtaining authorization from the customer to port a number are defined by the Service Providers. The NPAC is not involved in obtaining or verifying customer authorization. Details of steps in those processes do not involve the NPAC or NPAC SMS, and are beyond the scope of the NPAC SMS functionality.

2.1.2 Subscription version creation process

The Subscription Version creation flow activities are shown in the LNP Process Flow Diagrams on the NPAC website (www.npac.com).

2.1.2.1 Create Subscription Version

When a number is ported, both the old and new Service Providers can send a Create request to the NPAC SMS. The NPAC validates the data for each Create request and attempts to match the Create request with a concurring Create request from the other Service Provider. If a Create request is missing from either provider after a tunable time period, the NPAC sends a request for the missing Create request. If the data provided with the Create request is valid, the NPAC SMS creates a pending Subscription Version and awaits the concurring Create request. If the data is invalid, the NPAC SMS reports a specific error to the sender of the data and discards the request.

2.1.2.2 Final Concurrence Notification to Old Service Provider

The NPAC will send a final concurrence notification to the Old Service Provider who did not send a concurring notification

2.1.3 Service providers perform physical changes

The two Service Providers involved in the number port will coordinate and perform the physical changes to their respective networks

CN2-1.3.1. Service provider network change activities are beyond the scope of the NPAC SMS

Details of steps in the processes that do not involve the NPAC or NPAC SMS, such as physical changes performed in the Service Provider's networks, are beyond the scope of the NPAC SMS functionality

2.1.4 NPAC SMS "activate and data download" process

The NPAC network data broadcast download flow is shown in the LNP Process Flow Diagrams on the NPAC website (www.npac.com)

2.1.4.1 New Service Provider sends activation to NPAC SMS

The new Service Provider sends an activate request to the NPAC SMS. If the current date is greater than or equal to the new Service Provider due date, the flow continues. Otherwise, broadcast of the activation is rejected.

2.1.4.2 NPAC SMS broadcasts network data to appropriate Service Providers

Upon receipt of the activation request, the NPAC SMS broadcasts the network update data in real time to the appropriate Service Providers' Local SMSs.

2.1.4.3 Failure - notify NPAC

If the NPAC SMS does not receive positive acknowledgment of the broadcast from all Service Providers, the NPAC SMS will re-broadcast the network data download to the Service Providers that did not acknowledge the original broadcast. The NPAC SMS will perform the re-broadcast a tunable number of times within a tunable time frame.

2.1.4.4 Initiate repair procedures

If the tunable re-broadcast parameters have been exceeded, the NPAC staff will initiate repair processes with the appropriate Service Providers. The NPAC SMS will send the list of Service Providers associated with each failed or partial failure subscription version to the old and new Service Providers.

2.1.5 Service providers perform network updates

Upon receiving the data download broadcast from the NPAC SMS, all Service Providers' local SMSs will confirm the receipt of the download broadcast, and update their network elements. The Service Providers may also test their network changes.

CN2-1.5.1. Service Provider's Network Change Validation Activities Are Beyond The Scope Of The NPAC SMS

Network testing performed by the Service Providers, such as testing of call processing and testing of Service Provider network elements, is beyond the scope of the NPAC SMS.

2.2 Disconnect Process

This process flow defines the activities associated with the discontinuance of service for a ported number

2.2.1 Customer notification, Service Provider initial disconnect service order activities

When a ported number is being disconnected, the customer and Service Provider will agree on a date. The Service Provider will send a Disconnect request to the NPAC SMS indicating the date of the physical disconnect of the number and, optionally, the date that the disconnect information is to be broadcast to all Local SMSs (the 'effective release date')

2.2.2 NPAC waits for effective release date

The NPAC SMS will broadcast delete messages containing the disconnect information based on the effective release date specified by the Service Provider. If no effective release date is specified on the disconnect request, the NPAC SMS processes the request immediately.

2.2.3 NPAC donor notification

The NPAC SMS will send the effective release date and disconnect date to the donor SOA via a notification.

2.2.4 NPAC performs broadcast download of disconnect data

The NPAC SMS will broadcast the disconnect information to all Service Providers. If the broadcast is not acknowledged, the disconnect information will be resent a tunable number of times within a tunable time frame. If the tunable parameters for the collection of responses have been exceeded, the NPAC staff will initiate repair processes with the appropriate Service Providers, and send a list of failed Service Providers to the current Service Provider.

2.3 Repair Service Process

This process flow defines the activities performed when a problem is detected either by the NPAC SMS, a Service Provider, or by a customer who contacts a Service Provider.

2.3.1-A Service provider receives problem notification from customer

If a customer determines there is a problem with their service, they may contact the Service Provider and request Repair Service. This is one possible entry point to the Repair Process flow.

2.3.1-B Service provider receives problem notification from another Service Provider

If another Service Provider determines there is a problem with a customer's service, they may contact the current Service Provider and request Repair Service. This is one possible entry point to the Repair Process flow.

2.3.1-C Service provider receives problem notification from NPAC SMS

If the NPAC determines there is a problem with a customer's service, they may contact the current Service Provider and request Repair Service. This is one possible entry point to the Repair Process flow.

2.3.2 Service provider analyzes the problem

If NPAC SMS intervention is needed to resolve the problem, up to three repair actions may be required before repairs can be initiated.

2.3.2-A Subscription data query required

If a Subscription data query is required to initiate the repair, a query is launched to the Local Service Providers.

2.3.2-B Subscription data audit required

If a Subscription data audit is required before the repair can be initiated, an audit is initiated with the local Service Providers.

2.3.2-C Network synchronization required

If network synchronization is required, Request broadcast of subscription data.

2.3.3 Service provider performs repairs

There will be audit capabilities in the NPAC SMS to aid in isolating problems.

CN2-3.3.1 Service provider's repair activities are beyond the scope of the NPAC SMS

Details of steps in the repair processes that do not involve the NPAC or NPAC SMS, such as the customer's notification of problems, the Service Provider's analysis/troubleshooting activities and the Service Provider's repair activities are beyond the scope of the NPAC SMS functionality.

2.3.4 Request broadcast of subscription data

There will be audit capabilities in the NPAC SMS to aid in isolating problems. A Service Provider may request a download of subscription data to assist in the repair process, if necessary.

2.3.5 Broadcast repaired subscription data

If inaccurate routing data is found, the NPAC SMS will broadcast the correct subscription data to any involved Service Provider's networks to correct inaccuracies

2.4 Conflict Process

This process flow defines the activities performed when Service Providers disagree on who will serve a particular customer

2.4.1 Subscription version in conflict

A Subscription Version may be put into a conflict state either by the old Service Provider (assuming certain conditions are true), or as a result of a failure to acknowledge a Subscription Version in Cancel-Pending state by the new Service Provider. Subscription Versions set to either conflict or cancel initiate the creation of an entry in the Subscription Cause Code field identifying the cause of the status change.

2.4.1.1 Cancel-Pending Acknowledgment missing from new Service Provider

If the new Service Provider has not yet acknowledged a Subscription Version in Cancel-Pending state, the Subscription Version is put into Conflict, and the Cause Code is updated accordingly.

2.4.1.2 Old Service Provider requests conflict status

If the old Service Provider requests that a Subscription Version be put in conflict, it must be the first time the request has been made (a request to put a Subscription Version in conflict can only be made once by the old Service Provider). The request must be received in the NPAC a tunable number of hours prior to 12:00 A.M. of the new Service Provider due date and the expiration of the Final Concurrence Window unless short timers are being used for the port. If the old Service Provider has not satisfied these conditions then the Subscription Version cannot be put into conflict.

2.4.1.3 Change of status upon problem notification

A Subscription Version's conflict status "on" is achieved when a Service Provider notifies the NPAC SMS of a disagreement between the new and old Service Providers as to whether or not a TN may be ported. The old Service Provider can only place a "pending" Subscription Version in "conflict" one time.

2.4.1.4 Change of status upon Old Service Provider non-concurrence

A Subscription Version creation with authorization set to "False" from the Old Service Provider causes the NPAC SMS to place the Subscription Version in conflict during the "Create Version" process.

2.4.1.5 Change of status upon New Service Provider non-concurrence

Non-concurrence from the New Service Provider causes the NPAC SMS to cancel the Subscription Version during the "Create Version" process.

2.4.2 New Service Provider coordinates conflict resolution activities

The New and Old Service Providers use internal and inter-company processes to resolve the conflict. If the conflict is resolved, the new Service Provider sets the Subscription Version status to pending. If the conflict is not resolved within the tunable maximum number of days, the NPAC SMS cancels the Subscription Version, and sets the Cause Code for the Subscription Version.

2.4.2.1 Cancel pending notification

The cancel-pending notification is used for Subscription Versions where both the Old and New Service Providers have sent their Create request to the NPAC SMS. The pre-cancellation status will be either pending or conflict.

If the Old Service Provider sends the Cancel request, the Subscription Version is set to cancel-pending. A notification is sent to both Old and New Service Providers.

- 1 If the New Service Provider sends a cancellation acknowledgment (CMIP) or cancel request (XML), the status is set to Canceled.
- 2 If the New Service Provider does NOT send a cancellation acknowledgment (CMIP) or cancel request (XML), the NPAC SMS waits for both Cancellation Concurrence Windows to expire, at which time the status is set to Conflict and the NPAC SMS sends a notification to both the Old and New Service Providers indicating the status change.
- 3 The Old Service Provider may optionally send the cancellation acknowledgment (CMIP only, N/A in XML).

If the New Service Provider sends the Cancel request, the Subscription Version is set to cancel-pending. A notification is sent to both Old and New Service Providers.

- 1 If the Old Service Provider sends a cancellation acknowledgment (CMIP) or cancel request (XML), the status is set to Canceled.
- 2 If the Old Service Provider does NOT send a cancellation acknowledgment (CMIP) or cancel request (XML), the NPAC SMS waits for both Cancellation Concurrence Windows to expire, at which time the status is set to Cancel.
- 3 The New Service Provider may optionally send the cancellation acknowledgment (CMIP only, N/A in XML).

If the Service Provider (either Old or New) that sent the Cancel request, issued the cancel request in error, that Service Provider can “un-do” the request by sending a subsequent modify request, and the Subscription Version is set back to pending or conflict. A notification is sent to both Old and New Service Providers.

2.4.2.1. Service provider’s conflict resolution activities are beyond the scope of the SMS NPAC

Details of steps in the processes that do not involve the NPAC or NPAC SMS, such as conflict resolution escalation and arbitration activities are beyond the scope of this document.

2.4.3 Subscription version cancellation

If the Subscription Version status has been set to conflict “on” for 30 days [tunable parameter] and no resolution has occurred, the NPAC SMS will cancel the Subscription Version, set the Cause Code for the Subscription Version, and notify both the old and new Service Providers of the cancellation.

2.4.4 Conflict resolved

When both Service Providers agree to resolve the conflict, one of the Service Providers will send a request to the NPAC SMS to change the Subscription Version status to pending. In the case of cause codes 50 or 51, the NPAC will only accept the resolve conflict request from the Old Service Provider.

2.5 Disaster Recovery and Backup Process

This process flow defines the backup and restore activities performed by the NPAC and the Service Providers

2.5.1 NPAC personnel determine downtime requirement

If there is planned downtime for the NPAC SMS, the NPAC SMS will send an electronic notification to the Service Providers' SOAs that includes information on when the downtime will start, how long it will be, and if they will be required to switch to the backup or disaster recovery machine. Downtime is considered planned when the NPAC can provide notification to the Service Providers at least 24 hours in advance.

If there is unplanned downtime, the NPAC will assess how long the primary machine will be down. The NPAC will notify all of the Service Providers by electronic notification and telephone calls to the Service Providers' contact numbers. The notification will describe the situation and the planned action. The Service Providers will attempt to switch to the backup NPAC.

2.5.2 NPAC notifies Service Providers of switch to backup NPAC and start of cutover quiet period

The NPAC Service Providers will switch to the backup or disaster recovery machine as indicated in the notification.

2.5.3 Service providers connect to backup NPAC

The Service Providers must use an alternate connection route to the backup NPAC and establish associations with the backup NPAC application.

2.5.4 Backup NPAC notifies Service Providers of application availability and end of cutover quiet period

When the backup NPAC application and database are on-line, processes will proceed as normal. The backup NPAC application will be at the same version level as the primary NPAC application. The NPAC SMS database will also contain the same routing information as the primary database.

2.5.5 Service providers conduct business using backup NPAC

The Service Provider should continue to process as normal when connected to the backup NPAC.

2.5.6 Backup NPAC notifies Service Providers of switch to primary NPAC and start of cutover quiet period

When the primary machine is brought back up, the backup NPAC will advise the Service Providers of the timing of their switch back to the primary machine.

2.5.7 Service providers reconnect to primary NPAC

The Service Providers re-establish associations with the primary NPAC application using their normal connections

2.5.8 Primary NPAC notifies Service Providers of availability and end of cutover quiet period

When the primary NPAC is available, NPAC personnel will notify Service Providers of the end of the cutover quiet period

2.6 Service Order Cancellation Process

This flow defines the process performed when a Service Provider cancels a service order

2.6.1 Service Provider issues service order cancellation

From the time both Service Providers have sent a valid Create request of a new Subscription Version to the time the Subscription Version is activated, either Service Provider may send a message to the NPAC SMS to cancel the Subscription Version. If this occurs, the NPAC SMS will notify both Service Providers that the Subscription Version is in a cancel-pending state.

2.6.2 Service provider cancels an un-concurred Subscription Version

If a Service Provider issues a cancel on a Subscription Version that was created by that Service Provider and not concurred to by the other Service Provider involved in that port, or if the Subscription Version was initiated, then subsequently canceled by the NPAC, the Subscription Version will be canceled immediately and a notification will be sent to both Service Providers.

2.6.3 NPAC requests missing acknowledgment from Service Provider

When notified that a Subscription Version has been set to cancel-pending, the non-requesting Service Provider must concur by returning a cancel-pending acknowledgment (CMIP) or cancel request (XML) to the NPAC SMS within a tunable amount of hours. If the NPAC does not receive acknowledgment in the allowable time from the Service Provider, a notification is sent to that Service Provider for a cancel-pending-acknowledgment (CMIP) or cancel request (XML). If the missing cancel-pending-acknowledgment (CMIP) or cancel request (XML) is not received within a tunable time frame, the Subscription Version status is set to "conflict" if it is the new Service Provider that failed to acknowledge, but is set to cancel if the old Service Provider failed to acknowledge. In either case, the Cause Code is then set for the Subscription Version, and both Service Providers are then notified of the Subscription Version status change.

2.6.4 NPAC cancels the Subscription Version and notifies both Service Providers

When acknowledgment is received from both Service Providers, within the allowed time frame the NPAC SMS will set the Subscription Version to cancelled in its database, update the Cause Code for the Subscription Version, and

notify both Service Providers that the Subscription Version has been cancelled. All cancelled Subscription Versions are purged from the NPAC database after a tunable period.

2.7 Audit Request Process

This process flow defines the activities performed by the NPAC when Service Providers request audits of LNP data.

2.7.1 Service provider requests audit

Any Service Provider can request an audit of another Service Provider's LSMS.

2.7.2 NPAC SMS issues queries to appropriate Service Providers

Upon receipt of an audit request, the NPAC SMS queries the appropriate Service Provider's Local SMS databases.

2.7.3 NPAC SMS compares Subscription Version data

The NPAC SMS compares its own Subscription Version data to the data it finds in the targeted Local SMS Subscription Version databases.

2.7.4 NPAC SMS updates appropriate Local SMS databases

The NPAC SMS updates Subscription Version information in the appropriate Local SMS databases.

2.7.5 NPAC SMS sends report of audit discrepancies to requesting SOA

Once the NPAC SMS has completed updates to the appropriate Local SMSs, the NPAC SMS generates an Audit Discrepancy report (CMIP only) to the Service Provider SOA that initiated the Audit request.

2.7.6 NPAC SMS sends report of audit results to requesting SOA

The NPAC SMS sends the audit results (XML includes discrepancies) to the Service Provider SOA that initiated the audit request, to indicate the audit is complete.

2.8 Report Request Process

This process flow defines the activities performed by the NPAC when the Service Providers request report generation and delivery.

2.8.1 Service provider requests report

Service Provider personnel request report generation via either the SOA Low Tech Interface or by contacting NPAC personnel

2.8.2 NPAC SMS generates report

The NPAC SMS generates the report that Service Provider Personnel requested via either the SOA Low Tech to NPAC SMS interface or based on NPAC personnel input into the NPAC Administrative GUI

2.8.3 Report delivered via NPAC Administrative or SOA Low-Tech Interface, Email, electronic file, fax, printer

The NPAC SMS delivers the report to the destination specified in the request

2.9 Data Administration Requests

This section defines the activities performed by the NPAC when Service Providers make a manual request for data administration

2.9.1 Service provider requests administration of data by NPAC personnel

Service provider personnel are able to contact NPAC personnel to request data administration activities

2.9.2 NPAC SMS personnel confirms user's privileges

Before NPAC personnel fulfill the data administration request, they will confirm the user's privileges and validate the request

2.9.3 NPAC SMS personnel inputs user's request

Upon validation of the request, NPAC personnel will input the request

2.9.4 NPAC SMS performs user's request

The NPAC SMS processes the request

2.9.5 NPAC SMS personnel logs request denial if user's privileges are not validated

If the user's privileges are not confirmed, or the request cannot be validated, the NPAC personnel log the activity and end the process

3. NPAC Data Administration

3.1 Overview

The NPAC SMS manages the ported TN information associated with Service Provider portability for the LNP service. This section describes the high level requirements associated with managing ported telephone numbers from an operations perspective. Figure 3-1 Entity Relationship Model illustrates the logical data model associated with the data elements for the NPAC SMS, and the relationship between NPAC Customer data and other data tracked or created by the system.

AR3-1 Greenwich Mean Time

DELETED

AR3-2 NPAC Administrative and SOA Low-Tech Interface Time

DELETED

AR3-3 System Tunable Time

DELETED

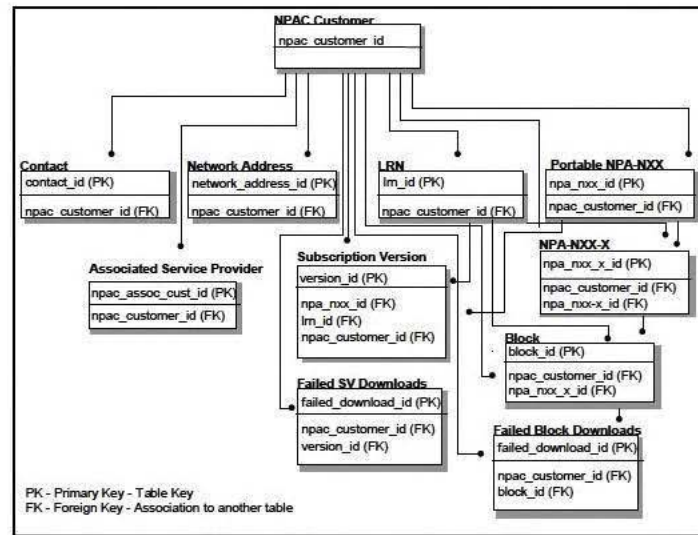


Figure 3-1 – Entity Relationship Model

3.1.1 Data Type Legend

The following table describes the data types used in the data models

| DATA TYPE LEGEND | |
|------------------|--|
| Data Type | Description |
| Address | Network Address: raw binary data stored as unformatted bytes |
| B | Boolean (True or False) indicator |
| C | Character or Alphanumeric strings |
| E | Enumeration |
| M | Bit Mask comprised of one or more bytes |
| N | Numeric data (up to 32 bit integer, numeric data that can be arithmetically manipulated) |
| N(x) | Character string of "x" digits only |

NPAC Data Administration

| | |
|----|--|
| T | Timestamp: month, day, year, hour, minute, and seconds |
| TN | Telephone Number: 3-digit NPA, 3-digit NXX, 4-digit Station Number |

Table 3-1 Data Type Legend

3.1.2 NPAC Customer Data

NPAC Customer Data contains information about NPAC customers participating in the LNP service. The data items that need to be administered by NPAC Customer Data Management are represented in the tables that follow:

NOTE: A check in the "Required" column means that this attribute must exist in the record before the record is considered useable.

| NPAC CUSTOMER DATA MODEL | | | |
|-----------------------------------|-------------|----------|---|
| Attribute Name | Type (Size) | Required | Description |
| NPAC Customer ID | C (4) | √ | An alphanumeric code which uniquely identifies an NPAC Customer |
| NPAC Customer Name | C (40) | √ | A unique NPAC Customer Name |
| NPAC Customer Allowable Functions | M | √ | Each bit in the mask represents a Boolean indicator for the following functional options: <ul style="list-style-type: none"> • SOA Management • SOA Network Data Management • SOA Data Download • LSMS Network Data Management • LSMS Data Download • LSMS Queries/Audits <p>(only applies to the CMIP interface, not the XML interface)</p> |
| NPAC New Functionality Support | B | √ | Each value represents a Boolean indicator is set to true if a service provider supports the functionality defined below. This Boolean is used to support backward compatibility. All values default to FALSE. <ul style="list-style-type: none"> • Timer Type – True if the SOA supports timer type over the interface • Business Hours – True if the SOA supports business days/hours over the interface • LSMS WSMSC DPC SSN Data – True |

| NPAC CUSTOMER DATA MODEL | | | |
|---------------------------------------|-------------|----------|---|
| Attribute Name | Type (Size) | Required | Description |
| | | | <p>if the LSMS system supports WSMSC DPC and SSN Data in subscription versions</p> <ul style="list-style-type: none"> SOA WSMSC DPC SSN Data – True if the SOA system supports WSMSC DPC and SSN Data in subscription versions |
| Port In Timer Type | E | √ | <p>Timer type supported by the Service Provider for porting where they are the New Service Provider:</p> <p>S – Short Timers</p> <p>L – Long Timers</p> <p>Cannot select Medium Timers as a default value Medium Timers are derived based on information from the New SP and Old SP</p> |
| Port Out Timer Type | E | √ | <p>Timer type supported by the Service Provider for porting where they are the Old Service Provider:</p> <p>S – Short Timers</p> <p>L – Long Timers</p> <p>Cannot select Medium Timers as a default value Medium Timers are derived based on information from the New SP and Old SP</p> |
| Business Hour/Days | E | √ | <p>Business Hours supported by the Service Provider:</p> <p>S – Short Business Hours</p> <p>L – Long Business Hours</p> <p>Cannot select Medium Business Hours as a default value Medium Business Hours are derived based on information from the New SP and Old SP</p> |
| NPAC Customer SOA NPA-NXX-X Indicator | B | √ | <p>A Boolean that indicates whether the NPAC Customer accepts NPA-NXX-X downloads from the NPAC SMS to their SOA This would be used in conjunction with the SOA Data Download bit mask value</p> <p>The default value is False</p> |
| NPAC Customer LSMS NPA-NXX-X | B | √ | <p>A Boolean that indicates whether the NPAC Customer accepts NPA-NXX-X downloads</p> |

| NPAC CUSTOMER DATA MODEL | | | |
|--|-------------|----------|---|
| Attribute Name | Type (Size) | Required | Description |
| Indicator | | | from the NPAC SMS to their LSMS. This would be used in conjunction with the LSMS Data Download bit mask value. The default value is False. |
| TN Range Notification Indicator | B | √ | A Boolean that indicates whether or not the NPAC Customer supports receiving the range format for SOA Notifications. The default value is False. |
| No New SP Concurrence Notification Indicator | B | √ | A Boolean that indicates whether or not the NPAC Customer supports receiving the SOA Notification "No New SP Concurrence Notification". The default value is False. |
| SOA Notification Priority Tunable Parameters | C | √ | Allows a NPAC Customer to establish the priority to be used for transmitting the notifications listed in Appendix C, Table C-7 to his SOA. Valid priority values for these notifications are HIGH, MEDIUM, LOW, and NONE. A priority of NONE indicates that the NPAC Customer does NOT wish to receive that particular notification. The default value is MEDIUM. |
| NPAC Customer SOA Linked Replies Indicator | B | √ | A Boolean that indicates whether or not the NPAC Customer supports receiving Linked Reply recovery responses over the NPAC SMS to SOA interface (only applies to the CMIP interface, not the XML interface). The default value is FALSE. |
| NPAC Customer Local SMS Linked Replies Indicator | B | √ | A Boolean that indicates whether or not the NPAC Customer supports receiving Linked Reply recovery responses over the NPAC SMS-to-Local SMS interface (only applies to the CMIP interface, not the XML interface). The default value is FALSE. |
| Maximum TN Download in Recovery Request | N | √ | A Service Provider specific tunable indicating the maximum number of TNs that |

| NPAC CUSTOMER DATA MODEL | | | |
|--|-------------|----------|---|
| Attribute Name | Type (Size) | Required | Description |
| | | | <p>can be recovered in a single time-based, recovery request (only applies to the CMIP interface, not the XML interface)</p> <p>Valid range is 1-10000</p> <p>The default value is 2000</p> <p>Refer to Appendix C System Tunables for information on the maximum for TN-based SV recovery requests</p> |
| Service Provider SOA SWIM Recovery Indicator | B | √ | <p>A Service Provider Boolean that indicates whether or not this Service Provider supports SWIM Recovery over their SOA-to-NPAC SMS interface (only applies to the CMIP interface, not the XML interface)</p> <p>The default value is FALSE</p> |
| Service Provider LSMS SWIM Recovery Indicator | B | √ | <p>A Service Provider Boolean that indicates whether or not this Service Provider supports SWIM Recovery over their LSMS-to-NPAC SMS interface (only applies to the CMIP interface, not the XML interface)</p> <p>The default value is FALSE</p> |
| NPAC SMS to SOA Application Level Heartbeat Indicator | B | √ | <p>A Service Provider Boolean that defines whether the NPAC Customer SOA supports an Application Level Heartbeat message For the XML interface, this is the Keepalive message</p> <p>The default value is FALSE</p> |
| NPAC SMS-to-LSMS Application Level Heartbeat Indicator | B | √ | <p>A Service Provider Boolean that defines whether the NPAC Customer LSMS supports an Application Level Heartbeat message For the XML interface, this is the Keepalive message</p> <p>The default value is FALSE</p> |
| SOA Action Application Level Errors Indicator | B | √ | <p>A Service Provider Boolean that defines whether the NPAC Customer supports Application Level Errors across the SOA Interface for M-ACTIONS (only applies to the CMIP interface, not the XML interface)</p> <p>The default is FALSE</p> |

| NPAC CUSTOMER DATA MODEL | | | |
|--|-------------|----------|---|
| Attribute Name | Type (Size) | Required | Description |
| LSMS Action Application Level Errors Indicator | B | √ | A Service Provider Boolean that defines whether the NPAC Customer supports Application level Errors across the LSMS Interface for M-ACTIONS (only applies to the CMIP interface, not the XML interface) The default is FALSE |
| SOA Non-Action Application Level Errors Indicator | B | √ | A Service Provider Boolean that defines whether the NPAC Customer supports Application Level Errors across the SOA Interface for all non-M-ACTIONS (only applies to the CMIP interface, not the XML interface) |
| LSMS Non-Action Application Level Errors Indicator | B | √ | A Service Provider Boolean that defines whether the NPAC Customer supports Application Level Errors across the LSMS Interface for all non-M-ACTIONS (only applies to the CMIP interface, not the XML interface) |
| SOA Notification Channel Service Provider Tunable | B | √ | A Service Provider Boolean that defines whether the NPAC Customer SOA supports a separate SOA association dedicated to notifications (only applies to the CMIP interface, not the XML interface) The default is FALSE |
| Subscription Version TN Attribute Flag Indicator | B | √ | A Service Provider Boolean that defines whether the NPAC Customer supports receipt of the Subscription Version TN attribute in a Subscription Version Status Attribute Value Change or Subscription Version Attribute Value Change notification (only applies to the CMIP interface, not the XML interface) The default is FALSE |
| Number Pool Block NPA-NXX-X Attribute Flag Indicator | B | √ | A Service Provider Boolean that defines whether the NPAC Customer supports receipt of the Number Pool Block NPA-NXX-X attribute in a Number Pool Block Status Attribute Value Change or Number Pool Block Attribute Value Change notification (only applies to the CMIP interface, not the XML interface) |

| NPAC CUSTOMER DATA MODEL | | | |
|---|-------------|----------|---|
| Attribute Name | Type (Size) | Required | Description |
| | | | The default is FALSE |
| Service Provider SOA Supports Cancel-Pending-to-Conflict Cause Code | B | √ | A Service Provider Boolean that defines whether a SOA NPAC Customer supports a Conflict message that uses the Cancel-Pending-to-Conflict Cause Code The default is FALSE |
| Service Provider SOA SV Query Indicator | B | √ | A Service Provider Boolean that defines whether a SOA NPAC Customer supports enhanced Subscription Version query functionality over their SOA-to-NPAC SMS Interface The default is FALSE |
| Service Provider LSMS SV Query Indicator | B | √ | A Service Provider Boolean that defines whether a LSMS NPAC Customer supports enhanced Subscription Version query functionality over their LSMS-to-NPAC SMS Interface The default is FALSE |
| Service Provider Type | E | √ | Enumeration indicating what type of service provider the NPAC Customer is: <ul style="list-style-type: none"> • Wireline (0) • Wireless (1) • Non-Carrier (2) • Class 1 Interconnected VoIP (3) • SP Type 4 (4) (supported by the interface, but not accepted until industry use defined) • SP Type 5 (5) (supported by the interface, but not accepted until industry use defined) |
| Service Provider Type SOA Indicator | B | | A Service Provider Boolean that indicates whether the NPAC Customer SOA supports the Service Provider Type attribute Default value is FALSE |
| Service Provider Type LSMS Indicator | B | | A Service Provider Boolean that indicates whether the NPAC Customer LSMS |

NPAC Data Administration

| NPAC CUSTOMER DATA MODEL | | | |
|--|-------------|----------|--|
| Attribute Name | Type (Size) | Required | Description |
| | | | supports the Service Provider Type attribute Default value is FALSE |
| NPAC Customer SOA SV Type Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports SV Type (or Number Pool Block SV Type) information from the NPAC SMS to their SOA The default value is False |
| NPAC Customer SOA Alternative SPID Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports Alternative SPID information (a second service provider – either a facility-based provider or reseller, acting as a non facility-based provider) from the NPAC SMS to their SOA The default value is False |
| NPAC Customer LSMS SV Type Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports SV Type (or Number Pool Block SV Type) information from the NPAC SMS to their LSMS The default value is False |
| NPAC Customer LSMS Alternative SPID Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports Alternative SPID information (a second service provider – either a facility-based provider or reseller, acting as a non facility-based provider) from the NPAC SMS to their LSMS The default value is False |
| Service Provider SOA Supports SPID Recovery Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports SPID Recovery processing from the SOA to the NPAC SMS (only applies to the CMIP interface, not the XML interface) The default value is False |
| Service Provider LSMS Supports SPID Recovery Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports SPID Recovery processing from the NPAC SMS to the LSMS (only applies to the CMIP interface, not the XML interface) The default value is False |

| NPAC CUSTOMER DATA MODEL | | | |
|--|-------------|----------|--|
| Attribute Name | Type (Size) | Required | Description |
| NPAC Customer SOA Alt-End User Location Value Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports Alt-End User Location Value information from the NPAC SMS to their SOA The default value is False |
| NPAC Customer LSMS Alt-End User Location Value Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports Alt-End User Location Value information from the NPAC SMS to their LSMS The default value is False |
| NPAC Customer SOA Alt-End User Location Type Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports Alt-End User Location Type information from the NPAC SMS to their SOA The default value is False |
| NPAC Customer LSMS Alt-End User Location Type Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports Alt-End User Location Type information from the NPAC SMS to their LSMS The default value is False |
| NPAC Customer SOA Alt-Billing ID Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports Alt-Billing ID information from the NPAC SMS to their SOA The default value is False |
| NPAC Customer LSMS Alt-Billing ID Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports Alt-Billing ID information from the NPAC SMS to their LSMS The default value is False |
| NPAC Customer SOA Voice URI Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports Voice URI information from the NPAC SMS to their SOA. The Voice URI is the network address to the Service Provider's gateway for Voice service The default value is False |

| NPAC CUSTOMER DATA MODEL | | | |
|---|-------------|----------|--|
| Attribute Name | Type (Size) | Required | Description |
| NPAC Customer LSMS Voice URI Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports Voice URI information from the NPAC SMS to their LSMS. The Voice URI is the network address to the Service Provider's gateway for Voice service. The default value is False |
| NPAC Customer SOA MMS URI Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports MMS URI information from the NPAC SMS to their SOA. The MMS URI is the network address to the Service Provider's gateway for MMS service. The default value is False |
| NPAC Customer LSMS MMS URI Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports MMS URI information from the NPAC SMS to their LSMS. The MMS URI is the network address to the Service Provider's gateway for MMS service. The default value is False |
| NPAC Customer SOA SMS URI Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports SMS URI information from the NPAC SMS to their SOA. The SMS URI is the network address to the Service Provider's gateway for SMS service. The default value is False |
| NPAC Customer LSMS SMS URI Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports SMS URI information from the NPAC SMS to their LSMS. The SMS URI is the network address to the Service Provider's gateway for SMS service. The default value is False |
| NPAC Customer SOA Last Alternative SPID Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports Last Alternative SPID information from the NPAC SMS to their SOA. The Last Alternative SPID is the SPID of the subtending Service Provider having the retail relationship with the end user. |

| NPAC CUSTOMER DATA MODEL | | | |
|--|-------------|----------|---|
| Attribute Name | Type (Size) | Required | Description |
| | | | The default value is False |
| NPAC Customer LSMS Last Alternative SPID Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports Last Alternative SPID information from the NPAC SMS to their LSMS. The Last Alternative SPID is the SPID of the subtending Service Provider having the retail relationship with the end user. The default value is False |
| Medium Timers Support Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports Medium Timers in an Object Creation Notification or Attribute Value Change Notification. The default value is False |
| Notification BDD Timer Type Business Hours Support Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports Timer Type and Business Hours in a Notification BDD File. The default value is False |
| NPAC Customer SOA Pseudo LRN Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports Pseudo LRN information from the SOA to the NPAC SMS. The Pseudo LRN is the ability to specify an LRN value of "000-000-0000". The default value is False |
| NPAC Customer LSMS Pseudo LRN Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports Pseudo LRN information from the NPAC SMS to the LSMS. The Pseudo LRN is the ability to receive an LRN value of "000-000-0000" in an SV or NPB. The default value is False |
| NPAC Customer SOA Pseudo LRN Notification Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports Pseudo LRN notifications to the SOA. The default value is False |
| NPAC Customer LTI Pseudo LRN Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports Pseudo LRN information from/to the LTI. |

| NPAC CUSTOMER DATA MODEL | | | |
|---|-------------|----------|--|
| Attribute Name | Type (Size) | Required | Description |
| | | | The default value is False |
| NPAC Customer SOA Force Pseudo LRN BDD Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports forcing Pseudo LRN information into the SOA BDD even if the SOA Indicator is set to False The default value is False |
| NPAC Customer LSMS Force Pseudo LRN BDD Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports forcing Pseudo LRN information into the LSMS BDD even if the LSMS Indicator is set to False The default value is False |
| Service Provider SOA Supports NPA-NXX Modification Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports SPID NPA-NXX Modification from the SOA to the NPAC SMS (only applies to the CMIP interface, not the XML interface) The default value is False |
| Service Provider LSMS Supports NPA-NXX Modification Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports NPA-NXX Modification from the NPAC SMS to the LSMS (only applies to the CMIP interface, not the XML interface) The default value is False |
| SOA XML Extended Errors Indicator | B | √ | A Service Provider Boolean that defines whether the NPAC Customer supports XML Extended Errors across the SOA Interface (only applies to the XML interface, not the CMIP interface) The default is FALSE |
| LSMS XML Extended Errors Indicator | B | √ | A Service Provider Boolean that defines whether the NPAC Customer supports XML Extended Errors across the LSMS Interface (only applies to the XML interface, not the CMIP interface) The default is FALSE |
| NPAC Customer SOA Last Activity Timestamp BDD Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports the Last Activity Timestamp in the SOA BDD |

| NPAC CUSTOMER DATA MODEL | | | |
|--|-------------|----------|---|
| Attribute Name | Type (Size) | Required | Description |
| | | | The default value is False |
| NPAC Customer LSMS Last Activity Timestamp BDD Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports Last Activity Timestamp in the LSMS BDD The default value is False |
| Origination Timestamp | T | | A timestamp when a request or reply is created (as distinguished from delivery) Each request or reply sent over the XML interface must have an Origination Timestamp regardless of the system that originates the message This timestamp should contain milliseconds accuracy |
| Activity Timestamp | T | | A timestamp the NPAC maintains on each object in the database to retain the “Origination Timestamp” for the last update made to a record The local system should also maintain this timestamp to capture the “Origination Timestamp” for the last update made for data received from the NPAC This timestamp should contain milliseconds accuracy |
| NPAC Customer SOA Sending Failed SV Query Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports Sending and Failed SVs in a Query Reply to the SOA The default value is False |
| NPAC Customer LSMS Sending Failed SV Query Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports Sending and Failed SVs in a Query Reply to the LSMS The default value is False |

Table 3-2 NPAC Customer Data Model

| NPAC CUSTOMER CONTACT DATA MODEL | | | |
|----------------------------------|-------------|----------|---|
| Attribute Name | Type (Size) | Required | Description |
| NPAC Customer Contact ID | N | √ | A unique sequential number assigned upon creation of the Contact record |
| NPAC Customer ID | C (4) | √ | An alphanumeric code which uniquely identifies an |

| NPAC CUSTOMER CONTACT DATA MODEL | | | |
|----------------------------------|-------------|----------|---|
| Attribute Name | Type (Size) | Required | Description |
| | | | NPAC Customer |
| Contact Type | C (2) | √ | The type of NPAC Customer Contact Organization Valid values are: <ul style="list-style-type: none"> • BI - Billing • CF - Conflict Resolution Interface • LI - Local SMS Interface • NC - NPAC Customer • NF - Network and Communications Facilities Interface • OP - Operations • RE - Repair Center Contact Organization • SE - Security • SI - SOA System Interface • UA - User Administration • WI - Web Interface |
| Contact | C (40) | √ | Name of NPAC Customer Contact Organization |
| Contact Address Line 1 | C (40) | √ | Contact Organization address Line 1 |
| Contact Address Line 2 | C (40) | √ | Contact Organization address Line 2 Conditional – required in CMIP, optional in XML |
| Contact City | C (20) | √ | Contact Organization city |
| Contact State | C (2) | √ | Contact Organization state |
| Contact Zip | C (9) | √ | Contact Organization zip code or postal code |
| Contact Country | C (20) | √ | Contact Organization country |
| Contact Province | C (2) | | Contact Organization province |
| Contact Phone | TN | √ | Contact Organization phone number |
| Contact Fax | TN | | Contact Organization Fax phone number |
| Contact Pager | TN | | Contact Organization Pager phone number |
| Contact Pager PIN | C (10) | | Contact Organization Pager Personal Identification Number (PIN) |
| Contact Email | C (60) | | Contact Organization E-mail address |

Table 3-3 NPAC Customer Contact Data Model

| NPAC CUSTOMER NETWORK ADDRESS DATA MODEL | | | |
|--|--------------|----------|---|
| Attribute Name | Type (Size) | Required | Description |
| NPAC Customer Network Address ID | N | √ | A unique sequential number assigned upon creation of the Network Address record |
| NPAC Customer ID | C (4) | √ | An alphanumeric code which uniquely identifies an NPAC Customer |
| Network Address Type | C (1) | √ | Type of Network Address. Valid values are: <ul style="list-style-type: none"> • S - SOA interface • L - Local SMS interface |
| OSI information (NSAP, TSAP, SSAP, PSAP) applies to the CMIP interface. XML Connection Address information (host, port) applies to the XML interface. In a scenario where a Service Provider is transitioning from CMIP to XML, both OSI information and XML Connection information may be populated and valid in the NPAC Customer Network Address Data Model, but at any one point in time, only one set of information will be used to connect to the NPAC. | | | |
| NSAP Address | Address (12) | | OSI Network Service Access Point Address |
| TSAP Address | Address (4) | | OSI Transport Service Access Point Address |
| SSAP Address | Address (4) | | OSI Session Service Access Point Address |
| PSAP Address | Address (4) | | OSI Presentation Service Access Point Address |
| Internet Address | Address (12) | | Internet address of the Service Provider Web interface |
| XML Connection Address – Self Host | C (255) | | NPAC Primary, IP address for incoming connection from Service Provider |
| XML Connection Address – Self Port | N (12) | | NPAC Primary, TCP port for incoming connection from Service Provider |
| XML Connection Address – Self Backup Host | C (255) | | NPAC Backup, IP address for incoming connection from Service Provider |
| XML Connection Address – Self Backup Port | N (12) | | NPAC Backup, TCP port for incoming connection from Service Provider |
| XML Connection Address – Peer Host | C (255) | | Service Provider Primary, IP address for incoming connection from NPAC |
| XML Connection | N (12) | | Service Provider Primary, TCP port for incoming |

| NPAC CUSTOMER NETWORK ADDRESS DATA MODEL | | | |
|---|-------------|----------|---|
| Attribute Name | Type (Size) | Required | Description |
| Address – Peer Port | | | connection from NPAC |
| XML Connection Address – Peer Host Backup | C (255) | | Service Provider Backup, IP address for incoming connection from NPAC |
| XML Connection Address – Peer Port Backup | N (12) | | Service Provider Backup, TCP port for incoming connection from NPAC |

Table 3-4 NPAC Customer Network Address Data Model

| NPAC CUSTOMER ASSOCIATED SERVICE PROVIDER DATA MODEL | | | |
|--|-------------|----------|---|
| Attribute Name | Type (Size) | Required | Description |
| Primary NPAC Customer ID | C (4) | √ | An alphanumeric code which uniquely identifies an NPAC Customer that will act as a primary SPID |
| Associated NPAC Customer ID | C (4) | √ | An alphanumeric code that uniquely identifies an NPAC Customer that will act as a SPID associated with a primary SPID |

Table 3-5 NPAC Customer Associated Service Provider Data Model

| NPAC CUSTOMER REQUEST-DELEGATE DATA MODEL | | | |
|---|-------------|----------|--|
| Attribute Name | Type (Size) | Required | Description |
| Request NPAC Customer ID | C (4) | √ | An alphanumeric code which uniquely identifies an NPAC Customer that will act as a request SPID |
| Delegate NPAC Customer ID | C (4) | √ | An alphanumeric code that uniquely identifies an NPAC Customer that will act as a delegate SPID associated with a request SPID |

Table 3-6 NPAC Customer Request-Delegate Data Model

3.1.3 Subscription Version Data

Subscription Version Data consists of information about the ported TNs. The data items that need to be administered by Subscription Version Data Management functions are identified in the table that follows:

| SUBSCRIPTION VERSION DATA MODEL | | | |
|---------------------------------|-------------|----------|---|
| Attribute Name | Type (Size) | Required | Description |
| Version ID | N | √ | A unique sequential number assigned upon creation of the Subscription Version |
| LRN | TN | √ | The LRN is an identifier for the switch on which portable NPA-NXXs reside |
| Old Service Provider ID | C (4) | √ | Old Service Provider ID |
| New Service Provider ID | C (4) | √ | New Service Provider ID |
| TN | TN | √ | Subscription Version telephone number |
| Local Number Portability Type | E | √ | Number Portability Type. Valid enumerated values are: <ul style="list-style-type: none"> • LSPP - Local Service Provider Portability (0) • LISP - Local Intra-Service Provider Portability (1) • POOL- Pooled Block Number Port (2) |
| Status | E | √ | Status of the Subscription Version The default value is P for Pending Valid enumerated values are: <ul style="list-style-type: none"> • X - Conflict (0) • A - Active (1) • P - Pending (2) • S - Sending (3) • F - Failed (4) • PF - Partial Failure (5) • DP - Disconnect Pending (6) • O - Old (7) • C - Canceled (8) • CP - Cancel Pending (9) |
| Download Reason | E | | The reason the SV is being downloaded to the LSMS Valid values are: 0 – new1 1 – delete1 2 – modified 3 – audit-discrepancy |

| SUBSCRIPTION VERSION DATA MODEL | | | |
|--|-------------|----------|---|
| Attribute Name | Type (Size) | Required | Description |
| CLASS DPC | N (9) | √ | DPC for 10-digit GTT for CLASS features (required for CMIP, optional for the XML interface) |
| CLASS SSN | N (3) | √ | CLASS SSN for the Subscription Version (required for CMIP, optional for the XML interface) |
| LIDB DPC | N (9) | √ | DPC for 10-digit GTT for LIDB features (required for CMIP, optional for the XML interface) |
| LIDB SSN | N (3) | √ | LIDB SSN for the Subscription Version (required for CMIP, optional for the XML interface) |
| CNAM DPC | N (9) | √ | DPC for 10-digit GTT for CNAM features (required for CMIP, optional for the XML interface) |
| CNAM SSN | N (3) | √ | CNAM SSN for the Subscription Version (required for CMIP, optional for the XML interface) |
| ISVM DPC | N (9) | √ | DPC for 10-digit GTT for ISVM features (required for CMIP, optional for the XML interface) |
| ISVM SSN | N (3) | √ | ISVM SSN for the Subscription Version (required for CMIP, optional for the XML interface) |
| WSMSC DPC | N (9) | √ | DPC for 10-digit GTT for WSMSC features This field is only required if the service provider supports WSMSC data (required for CMIP, optional for the XML interface) |
| WSMSC SSN | N (3) | √ | WSMSC SSN for the Subscription Version This field is only required if the service provider supports WSMSC data (required for CMIP, optional for the XML interface) |
| New Service Provider Due Date | T | √ | The due date planned by the new Service Provider for Subscription Version Transfer The seconds' field should always be populated with zeros |
| Old Service Provider Due Date | T | √ | The due date planned by the old Service Provider for Subscription Version Transfer The seconds' field should always be populated with zeros |
| Old Service Provider Authorization | B | | A Boolean indicator set by the old Service Provider to indicate authorization or denial of Transfer of Service for the Subscription Version to the new Service Provider |
| New Service Provider Create Time Stamp | T | | The date and time that the New Service Provider authorized Transfer of Service of the Subscription Version |

| SUBSCRIPTION VERSION DATA MODEL | | | |
|---|-------------|----------|---|
| Attribute Name | Type (Size) | Required | Description |
| Old Service Provider Authorization Time Stamp | T | | The date and time that the old Service Provider authorized Transfer of Service for the Subscription Version |
| Activation Request Time Stamp | T | | The date and time that the Subscription Version activation request was made by the new Service Provider |
| Activation Broadcast Date | T | | The date and time that broadcasting began to all local SMS systems for the activation of the Subscription Version |
| Activation Broadcast Complete Time Stamp | T | | The date and time that at least one Local SMS system successfully acknowledged the broadcast for the activate of the Subscription Version |
| Disconnect Request Time Stamp | T | | The date and time that the Subscription Version disconnect request was made by the local Service Provider |
| Disconnect Broadcast Time Stamp | T | | The date and time that broadcasting began to all local SMS systems for the disconnect of the Subscription Version |
| Disconnect Complete Time Stamp | T | | The date and time that at least one Local SMS system successfully acknowledged the broadcast for the disconnect of the Subscription Version |
| Effective Release Date | T | | The date that the Subscription Version is to be deleted from all Local SMS systems |
| Customer Disconnect Date | T | | The date that the Customer's service was disconnected |
| Pre-Cancellation Status | E | | Status of the Subscription Version prior to cancellation Valid enumerated values are: <ul style="list-style-type: none"> • X - Conflict (0) • P - Pending (2) • DP - Disconnect Pending (6) |
| Old Service Provider Cancellation Time Stamp | T | | The date and time that the Old Service Provider acknowledged that the Subscription Version be canceled |
| New Service Provider Cancellation Time Stamp | T | | The date and time that the New Service Provider acknowledged that the Subscription Version be canceled |
| Cancellation Time Stamp | T | | The date and time that the Subscription Version became canceled |
| Old Time Stamp | T | | The date and time that the Subscription Version became old |
| Conflict Time Stamp | T | | The date and time that the Subscription Version was last placed in conflict |

| SUBSCRIPTION VERSION DATA MODEL | | | |
|-------------------------------------|-------------|----------|---|
| Attribute Name | Type (Size) | Required | Description |
| Conflict Resolution Time Stamp | T | | The date and time that the resolution of a Subscription Version in conflict is acknowledged |
| Create Time Stamp | T | √ | The date and time that this Subscription Version record was created |
| Modified Time Stamp | T | √ | The date and time that this Subscription Version record was last modified The default value is the Create Time Stamp |
| Porting to Original | B | √ | A Boolean that indicates whether the Subscription Version created is to be ported back to the original Service Provider |
| End User Location Value | N (12) | | For future use |
| End User Location Value Type | N (2) | | For future use |
| Modify Request Timestamp | T | | The date and time that the Subscription Version Modify request was made |
| Modify Broadcast Timestamp | T | | The date and time that broadcasting began to all local SMS systems for the modification of the Subscription Version |
| Modify Broadcast Complete Timestamp | T | | The date and time that at least one local SMS system successfully acknowledged the broadcast for the modification of the Subscription Version |
| Billing ID | C (1-4) | | For future use Can be variable 1-4 alphanumeric characters |
| Status Change Cause Code | N (2) | | Used to specify reason for conflict when old Service Provider Authorization is set to False, or to indicate NPAC SMS initiated cancellation Valid values are: 0 - No value 1 - NPAC SMS Automatic Cancellation 2 - NPAC SMS Automatic Conflict from Cancellation 50 - LSR/WPR Not Received 51 - Initial Confirming FOC/WPRR Not Issued 52 - Due Date Mismatch 53 - Vacant Number Port 54 - General Conflict |
| Timer Type | E | √ | Timer type used for the subscription version 0 - Short Timers 1 - Long Timers 2 - Medium Timers |

| SUBSCRIPTION VERSION DATA MODEL | | | |
|---------------------------------|-------------|----------|--|
| Attribute Name | Type (Size) | Required | Description |
| Business Hour Type | E | √ | Business Hours used for the subscription version 0 – Short Business Hours/Days 1 – Long Business Hours/Days 2 – Medium Business Hours/Days |
| Alternative SPID | C (4) | | An alphanumeric code which uniquely identifies Alternative SPID information (a second service provider – either a facility-based provider or reseller, acting as a non facility-based provider) for this SV This field may only be specified if the service provider SOA supports Alternative SPID |
| SV Type | E | √ | Subscription Version Type Valid enumerated values are: <ul style="list-style-type: none">• Wireline – (0)• Wireless – (1)• Class 2 Interconnected VoIP – (2)• VoWIFI – (3)• Prepaid Wireless – (4)• Class 1 Interconnected VoIP – (5)• SV Type 6 – (6) This field is only required if the service provider supports SV Type data |
| Alt-End User Location Value | N (12) | | Alt-End User Location Value for Subscription Version This field may only be specified if the service provider SOA supports Alt-End User Location Value |
| Alt-End User Location Type | N (2) | | Alt-End User Location Type for Subscription Version This field may only be specified if the service provider SOA supports Alt-End User Location Type |
| Alt-Billing ID | C (4) | | Alt-Billing ID for Subscription Version This field may only be specified if the service provider SOA supports Alt-Billing ID |
| Voice URI | C (255) | | Voice URI for Subscription Version This field may only be specified if the service provider SOA supports Voice URI The Voice URI is the network address to the Service Provider's gateway for voice service |
| MMS URI | C (255) | | MMS URI for Subscription Version This field may only be specified if the service provider |

| SUBSCRIPTION VERSION DATA MODEL | | | |
|--|-------------|----------|---|
| Attribute Name | Type (Size) | Required | Description |
| | | | SOA supports MMS URI The MMS URI is the network address to the Service Provider's gateway for MMS |
| SMS URI | C (255) | | SMS URI for Subscription Version This field may only be specified if the service provider SOA supports SMS URI The SMS URI is the network address to the Service Provider's gateway for SMS |
| Last Alternative SPID | C (4) | | Last Alternative SPID for Subscription Version This field may be specified only if the service provider SOA supports Last Alternative SPID The Last Alternative SPID is the SPID of the subtending Service Provider having the retail relationship with the end user |
| New SP Medium Timer Indicator | B | √ | A Boolean that indicates whether the NPAC Customer views this SV as a simple port using Medium Timers when they are the New SP This field is only required if the service provider supports Medium Timers |
| Old SP Medium Timer Indicator | B | √ | A Boolean that indicates whether the NPAC Customer views this SV as a simple port using Medium Timers when they are the Old SP This field is only required if the service provider supports Medium Timers |
| New Service Provider Origination Timestamp | T | | A timestamp when a request or reply (from the New Service Provider) is created (as distinguished from delivery) Each request or reply sent over the XML interface must have an Origination Timestamp regardless of the system that originates the message This timestamp should contain milliseconds accuracy |
| Old Service Provider Origination Timestamp | T | | A timestamp when a request or reply (from the Old Service Provider) is created (as distinguished from delivery) Each request or reply sent over the XML interface must have an Origination Timestamp regardless of the system that originates the message This timestamp should contain milliseconds accuracy |
| Activity Timestamp | T | | A timestamp the NPAC maintains on each object in the database to retain the "Origination Timestamp" for the last update made to a record The local system should also maintain this timestamp to capture the "Origination Timestamp" for the last update made for data received from the NPAC This timestamp should contain milliseconds accuracy |

| SUBSCRIPTION VERSION DATA MODEL | | | |
|---------------------------------|-------------|----------|--|
| Attribute Name | Type (Size) | Required | Description |
| Suppress Initiator SPID | B | | A Boolean that indicates whether the Initiator SPID wishes to suppress notifications to itself |
| Suppress Grantor SPID | B | | A Boolean that indicates whether the Initiator SPID (as a Delegate) wishes to suppress notifications to its Grantor |
| Suppress Delegate SPID | B | | A Boolean that indicates whether the Initiator SPID (as a Grantor or another Delegate) wishes to suppress notifications to related Delegate(s) |
| Suppress Other SPID | B | | A Boolean that indicates whether the Initiator SPID wishes to suppress notifications to the Other SPID |
| Suppress Other SPID Delegates | B | | A Boolean that indicates whether the Initiator SPID wishes to suppress notifications to the Other SPID's Delegate(s) |

Table 3-7 Subscription Version Data Model

| SUBSCRIPTION VERSION FAILED SP LIST DATA MODEL | | | |
|--|-------------|----------|---|
| Attribute Name | Type (Size) | Required | Description |
| Subscription Version ID (Key) | N | √ | A unique sequential number assigned upon creation of the Subscription Version |
| SPID | C(4) | √ | The Service Provider ID of the discrepant SP |
| SP Name | C(40) | √ | The NPAC Customer Name of the discrepant SP |

Table 3-8 Subscription Version Failed SP List Data Model

| NUMBER POOLING BLOCK HOLDER INFORMATION DATA MODEL | | | |
|--|-------------|----------|--|
| Attribute Name | Type (Size) | Required | Description |
| Block ID | N | √ | A unique sequential number assigned upon creation of the Block |
| Block Holder SPID | C(4) | √ | The Service Provider Id of the block holder |
| NPA-NXX-X | N(7) | √ | NPA-NXX-X of the 1K Block |

| NUMBER POOLING BLOCK HOLDER INFORMATION DATA MODEL | | | |
|--|-------------|----------|--|
| Attribute Name | Type (Size) | Required | Description |
| LRN | TN | √ | The LRN is an identifier for the switch on which the pooled NPA-NXX-X resides for the 1K Block |
| CLASS DPC | N (9) | √ | DPC for 10-digit GTT for CLASS features for the 1K Block (required for CMIP, optional for the XML interface) |
| CLASS SSN | N (3) | √ | CLASS SSN for the 1K Block (required for CMIP, optional for the XML interface) |
| LIDB DPC | N (9) | √ | DPC for 10-digit GTT for LIDB features for the 1K Block (required for CMIP, optional for the XML interface) |
| LIDB SSN | N (3) | √ | LIDB SSN for the 1K Block (required for CMIP, optional for the XML interface) |
| CNAM DPC | N (9) | √ | DPC for 10-digit GTT for CNAM features for the 1K Block (required for CMIP, optional for the XML interface) |
| CNAM SSN | N (3) | √ | CNAM SSN for the 1K Block (required for CMIP, optional for the XML interface) |
| ISVM DPC | N (9) | √ | DPC for 10-digit GTT for ISVM features for the 1K Block (required for CMIP, optional for the XML interface) |
| ISVM SSN | N (3) | √ | ISVM SSN for the 1K Block (required for CMIP, optional for the XML interface) |
| WSMSC DPC | N (9) | √ | DPC for 10-digit GTT for WSMSC features for the 1K Block This field is only required if the service provider supports WSMSC data, as defined in the NPAC Customer Data Model (required for CMIP, optional for the XML interface) |
| WSMSC SSN | N (3) | √ | WSMSC SSN for the 1K Block This field is only required if the service provider supports WSMSC data, as defined in the NPAC Customer Data Model (required for CMIP, optional for the XML interface) |
| Alternative SPID | C (4) | | An alphanumeric code which uniquely identifies Alternative SPID information (a second service provider – either a facility-based provider or reseller, acting as a non facility-based provider) for this Number Pool Block This field may only be specified if the service provider SOA supports Alternative SPID |

| NUMBER POOLING BLOCK HOLDER INFORMATION DATA MODEL | | | |
|--|-------------|----------|--|
| Attribute Name | Type (Size) | Required | Description |
| Number Pool Block SV Type | E | √ | <p>Number Pool Block SV Type Valid enumerated values are:</p> <ul style="list-style-type: none"> • Wireline – (0) • Wireless – (1) • Class 2 Interconnected VoIP – (2) • VoWIFI – (3) • Prepaid Wireless – (4) • Class 1 Interconnected VoIP – (5) • SV Type 6 – (6) <p>This field is only required if the service provider supports Number Pool Block SV Type data</p> |
| Creation Date | T | | The date and time (GMT) that this Block Holder record was created |
| Activation Start Timestamp | T | | Date and time (GMT) of the Start of the Activation This field defines the date and time of the start of the activation request (i.e., the date and time the NPAC begins the broadcasts to the LSMSs) |
| Activation Broadcast Complete Timestamp | T | | Date and time (GMT) of the Completion of the Activation This field defines the date and time of the completion of the activation request (i.e., the date and time the NPAC receives at least one Local SMS acknowledgment of the broadcast, for the activation of the Block) |
| Last Modified Timestamp | T | | <p>Date and time (GMT) of the Last Modification to the Block</p> <p>The initial value is the Creation Timestamp</p> |
| Disconnect Request Time Stamp | T | | The date and time that the Block disconnect request was made by the NPAC personnel |
| Disconnect Broadcast Time Stamp | T | | The date and time that broadcasting began to all local SMS systems for the disconnect of the Block |
| Disconnect Complete Time Stamp | T | | The date and time that at least one Local SMS system successfully acknowledged the broadcast, for the disconnect of the Block |
| Old Time Stamp | T | | The date and time that the Block became old |
| Modify Request Timestamp | T | | The date and time that the Block Modify request was made |

| NUMBER POOLING BLOCK HOLDER INFORMATION DATA MODEL | | | |
|--|-------------|----------|--|
| Attribute Name | Type (Size) | Required | Description |
| Modify Broadcast Timestamp | T | | The date and time that broadcasting began to all local SMS systems for the modification of the Block |
| Modify Broadcast Complete Timestamp | T | | The date and time that at least one local SMS system successfully acknowledged the broadcast, for the modification of the Block |
| SOA Origination Indicator | B | √ | A Boolean that indicates whether or not the NPA-XXX-X Holder's SOA initiated the Block over the SOA-to-NPAC SMS Interface, and whether or not to send notifications to the SOA This attribute will be initially set by the NPAC SMS at the time of Block creation If originated by SOA, value is TRUE If originated by NPAC, value is FALSE |
| Status | E | √ | Status of the Block The initial value is S for Sending Valid enumerated values are: A - Active (1) S - Sending (3) F - Failed (4) PF - Partial Failure (5) O - Old (7) |
| Download Reason | E | | The reason the Block is being downloaded to the LSMS Valid values are: 0 - new1 1 - delete1 2 - modified 3 - audit-discrepancy |
| Alt-End User Location Value | N (12) | | Alt-End User Location Value for Number Pool Block This field may only be specified if the service provider SOA supports Alt-End User Location Value |
| Alt-End User Location Type | N (2) | | Alt-End User Location Type for Number Pool Block This field may only be specified if the service provider SOA supports Alt-End User Location Type |
| Alt-Billing ID | C (4) | | Alt-Billing ID for Number Pool Block This field may only be specified if the service provider SOA supports Alt-Billing ID |

| NUMBER POOLING BLOCK HOLDER INFORMATION DATA MODEL | | | |
|--|-------------|----------|--|
| Attribute Name | Type (Size) | Required | Description |
| Voice URI | C (255) | | Voice URI for Number Pool Block This field may only be specified if the service provider SOA supports Voice URI. The Voice URI is the network address to the Service Provider's gateway for voice service. |
| MMS URI | C (255) | | MMS URI for Number Pool Block This field may only be specified if the service provider SOA supports MMS URI. The MMS URI is the network address to the Service Provider's gateway for MMS. |
| SMS URI | C (255) | | SMS URI for Number Pool Block This field may only be specified if the service provider SOA supports SMS URI. The SMS URI is the network address to the Service Provider's gateway for SMS. |
| Last Alternative SPID | C (4) | | Last Alternative SPID for Number Pool Block This field may be specified only if the service provider SOA supports Last Alternative SPID. The Last Alternative SPID is the SPID of the subtending Service Provider having the retail relationship with the end user. |
| Origination Timestamp | T | | A timestamp when a request or reply is created (as distinguished from delivery). Each request or reply sent over the XML interface must have an Origination Timestamp regardless of the system that originates the message. This timestamp should contain milliseconds accuracy. |
| Activity Timestamp | T | | A timestamp the NPAC maintains on each object in the database to retain the "Origination Timestamp" for the last update made to a record. The local system should also maintain this timestamp to capture the "Origination Timestamp" for the last update made for data received from the NPAC. This timestamp should contain milliseconds accuracy. |
| Suppress Initiator SPID | B | | A Boolean that indicates whether the Initiator SPID wishes to suppress notifications to itself. |
| Suppress Grantor SPID | B | | A Boolean that indicates whether the Initiator SPID (as a Delegate) wishes to suppress notifications to its Grantor. |
| Suppress Delegate SPID | B | | A Boolean that indicates whether the Initiator SPID (as a Grantor or another Delegate) wishes to suppress notifications to related Delegate(s). |

Table 3-9 Number Pooling Block Holder Information Data Model

| NUMBER POOLING BLOCK FAILED SP LIST DATA MODEL | | | |
|--|-------------|----------|--|
| Attribute Name | Type (Size) | Required | Description |
| Block ID (Key) | N | √ | A unique sequential number assigned upon creation of the Block |
| SPID | C(4) | √ | The Service Provider ID of the discrepant SP |
| SP Name | C(40) | √ | The NPAC Customer Name of the discrepant SP |

Table 3-10 Number Pooling Block Failed SP List Data Model

3.1.4 Network Data

The network data represents the attributes associated with network topology and routing data with respect to local number portability. This information is used by the respective network elements to route ported numbers to the new termination points. The data items that need to be administered by Network Data Administration functions are identified in the tables that follow:

| PORTABLE NPA-NXX DATA MODEL | | | |
|-----------------------------|-------------|----------|---|
| Attribute Name | Type (Size) | Required | Description |
| NPA-NXX Id | N | √ | A unique sequential number assigned upon creation of the NPA-NXX record |
| NPA-NXX | C (6) | √ | The NPA-NXX open for porting |
| NPAC Customer ID | C (4) | √ | An alphanumeric code which uniquely identifies an NPAC customer |
| NPA-NXX Effective Date | T | √ | The date that the NPA-NXX is available for LNP in the NPAC Customer networks |
| Split new NPA | C (6) | | The new NPA-NXX for an NPA split |
| Split Activation Date | T | | The date that the new NPA-NXX becomes available for use in an NPA split. This date represents the beginning of the permissive dialing period. |
| Split Disconnect Date | T | | The date that the old NPA-NXX becomes unavailable for use in an NPA split. This date represents the end of the permissive dialing period. |
| NPA-NXX has been Ported | T | | A timestamp that indicates when the first TN within this NPA-NXX has been ported |

| PORTABLE NPA-NXX DATA MODEL | | | |
|-----------------------------|-------------|----------|--|
| Attribute Name | Type (Size) | Required | Description |
| NPA-NXX Modified Date | T | | Date and time (GMT) of the Last Modification to the NPA-NXX. The initial value is null. |
| Download Reason | E | | The reason the NPA-NXX is being downloaded to the LSMS. Valid values are: 0 – new1 1 – delete1 2 – modified. |
| Origination Timestamp | T | | A timestamp when a request or reply is created (as distinguished from delivery). Each request or reply sent over the XML interface must have an Origination Timestamp regardless of the system that originates the message. This timestamp should contain milliseconds accuracy. |
| Activity Timestamp | T | | A timestamp the NPAC maintains on each object in the database to retain the “Origination Timestamp” for the last update made to a record. The local system should also maintain this timestamp to capture the “Origination Timestamp” for the last update made for data received from the NPAC. This timestamp should contain milliseconds accuracy. |

Table 3-11 Portable NPA-NXX Data Model

| LRN DATA MODEL | | | |
|------------------|-------------|----------|---|
| Attribute Name | Type (Size) | Required | Description |
| LRN ID | N | √ | A unique sequential number assigned upon creation of the LRN record. |
| LRN | TN | √ | The LRN is the unique identifier for the switch on which a ported TN or Number Pool Block resides. |
| NPAC Customer ID | C (4) | √ | An alphanumeric code which uniquely identifies an NPAC Customer. |
| Download Reason | E | | The reason the LRN is being downloaded to the LSMS. Valid values are: 0 – new1 1 – delete1. |
| Origination | T | | A timestamp when a request or reply is created (as distinguished from delivery). Each request or reply sent |

| LRN DATA MODEL | | | |
|--------------------|-------------|----------|--|
| Attribute Name | Type (Size) | Required | Description |
| Timestamp | | | over the XML interface must have an Origination Timestamp regardless of the system that originates the message. This timestamp should contain milliseconds accuracy. |
| Activity Timestamp | T | | A timestamp the NPAC maintains on each object in the database to retain the "Origination Timestamp" for the last update made to a record. The local system should also maintain this timestamp to capture the "Origination Timestamp" for the last update made for data received from the NPAC. This timestamp should contain milliseconds accuracy. |

Table 3-12 LRN Data Model

| LSMS FILTERED NPA-NXX DATA MODEL | | | |
|----------------------------------|-------------|----------|--|
| Attribute Name | Type (Size) | Required | Description |
| LSMS Filter NPA-NXX ID | N | √ | A unique sequential number assigned upon creation of the LSMS Filtered NPA-NXX record. |
| NPAC Customer ID | C (4) | √ | An alphanumeric code that uniquely identifies the LSMS NPAC Customer who is filtering subscription version broadcasts. |
| NPA-NXX | C (6) | √ | The NPA-NXX for which the LSMS is filtering subscription version broadcasts. |
| Creation Timestamp | T | √ | Date the filtered NPA-NXX was created. |

Table 3-13 LSMS Filtered NPA-NXX Data Model

| NUMBER POOLING NPA-NXX-X HOLDER INFORMATION DATA MODEL | | | |
|--|-------------|----------|--|
| Attribute Name | Type (Size) | Required | Description |
| NPA-NXX-X ID | N | √ | A unique sequential number assigned upon creation of the NPA-NXX-X. |
| NPAC Customer ID- | C(4) | √ | The Service Provider Id of the NPA-NXX-X holder. |
| NPA-NXX-X | N(7) | √ | NPA-NXX-X of the 1K Block. |
| NPA-NXX-X Effective | T | √ | The effective date of the 1K Block. The time for this field will be stored in GMT, but equivalent to 00:00:00 network. |

| NUMBER POOLING NPA-NXX-X HOLDER INFORMATION DATA MODEL | | | |
|--|-------------|----------|---|
| Attribute Name | Type (Size) | Required | Description |
| Date | | | data time CST |
| Creation Time Stamp | T | | The date and time (GMT) that this NPA-NXX-X Holder record was created |
| Last Modified Time Stamp | T | | The date and time (GMT) of the Last Modification to this NPA-NXX-X Holder record The default value is the Creation Timestamp |
| Download Reason | E | | The reason the NPA-NXX-X is being downloaded to the LSMS Valid values are: 0 – new1 1 – delete1 2 – modified |
| NPA-NXX-X Pseudo LRN Indicator | B | √ | A Boolean that indicates whether the NPA-NXX-X is a pseudo-LRN pooled block The default value is False |
| Origination Timestamp | T | | A timestamp when a request or reply is created (as distinguished from delivery) Each request or reply sent over the XML interface must have an Origination Timestamp regardless of the system that originates the message This timestamp should contain milliseconds accuracy |
| Activity Timestamp | T | | A timestamp the NPAC maintains on each object in the database to retain the “Origination Timestamp” for the last update made to a record The local system should also maintain this timestamp to capture the “Origination Timestamp” for the last update made for data received from the NPAC This timestamp should contain milliseconds accuracy |

Table 3-14 Number Pooling NPA-NXX-X Holder Information Data Model

| NPAC CUSTOMER PSEUDO-LRN ACCEPTED SPID LIST DATA MODEL | | | |
|--|-------------|----------|---|
| Attribute Name | Type (Size) | Required | Description |
| NPAC Customer ID | C (4) | √ | An alphanumeric code which uniquely identifies an NPAC Customer |
| Accepted SPID | C(4) | √ | The Service Provider ID of the Accepted SP |

| NPAC CUSTOMER PSEUDO-LRN ACCEPTED SPID LIST DATA MODEL | | | |
|--|-------------|----------|---|
| Attribute Name | Type (Size) | Required | Description |
| Accepted SP Name | C(40) | √ | The NPAC Customer Name of the Accepted SP |

Table 3-15 NPAC Customer Pseudo-LRN Accepted SPID List Data Model

| NPAC CUSTOMER NOTIFICATION SUPPRESSION AUTHORIZED SPID LIST DATA MODEL | | | |
|--|-------------|----------|---|
| Attribute Name | Type (Size) | Required | Description |
| NPAC Customer ID | C (4) | √ | An alphanumeric code which uniquely identifies an NPAC Customer (SPID that is allowing the Authorized SPID to indicate on a request whether or not to suppress notifications) |
| Authorized SPID | C(4) | √ | The Service Provider ID of the Authorized SP (Initiator SPID that can suppress notifications to the NPAC Customer) |
| | | | |

Table 3-~~16~~6 NPAC Customer Notification Suppression Authorized SPID List Data Model

3.2 NPAC Personnel Functionality

The following requirements describe the functionality required by the NPAC SMS to support the daily operation of the Regional LNP SMS support staff, and the Service Provider Personnel that use the NPAC Low-Tech Interface. These requirements define the high level functionality required by the system with the specifics of each requirement defined in more detail in sections 4 and 5.

R3-3 Create NPA-NXX data for a Service Provider

NPAC SMS shall allow NPAC Personnel to create a new LNP NPA-NXX for a Service Provider.

R3-6.2 Mass Update Filter Usage

NPAC SMS shall, for a mass update request, only send updates for subscription versions that are not filtered on the Local SMS.

R3-7.1 Select Subscription Versions mass changes for one or more Subscription Versions

NPAC SMS shall allow Service Provider Personnel, via the NPAC Low-Tech Interface, and NPAC Personnel, via the NPAC Administrative Interface, to select Subscription Versions for mass update which match a user defined combination of any of the following: SPID, LNP Type (any single LNP Type or none), TN, TN range (NPA-NXX-xxxx through yyyy, where yyyy is greater than xxx), LRN, DPC values, SSN values, Billing ID, End User Location Type or End User Location Value (Previously part of B-760 and B-761)

Note: If a single LNP Type is selected, then only that LNP Type will be used, otherwise, if no LNP Type is selected, then no restriction is imposed on the LNP Type as a selection criteria

Note: Only NPAC Personnel can specify SPID Service Provider Personnel will use their default SPID value

R3-7.2 Administer Mass update on one or more selected Subscription Versions

NPAC SMS shall allow Service Provider Personnel, via the NPAC Low-Tech Interface, and NPAC Personnel, via the NPAC Administrative Interface, to specify a mass update action to be applied against all Subscription Versions selected (except for Subscription Versions with a status of old, partial failure, sending, disconnect pending or canceled) for LRN, DPC values, SSN values, SV Type, Alternative SPID, Last Alternative SPID, Alt-End User Location Value, Alt-End User Location Type, Alt-Billing ID, Voice URI, MMS URI, SMS URI, Billing ID, End User Location Type or End User Location Value (reference NANC 399)

Note: Service Provider Personnel are limited to LRN, DPCs, and SSNs

R3-7.3 Mass Update Selection Criteria

NPAC SMS shall require at least one selection criteria to be entered for a mass update

R3-7.4 Mass Update Service Provider Id

NPAC SMS shall match the Service Provider Id entered as selection criteria with the New or current Service Provider Id in the Subscription Version

R3-7.5 Mass Update - Creation of Old Subscription Version

DELETED

R3-7.6 Mass Update - Old Subscription Version No Broadcast

DELETED

R3-7.7 Mass Update Error Processing

NPAC SMS shall log an exception and proceed with Mass Update processing upon finding a subscription version in sending, disconnect pending, or partial failed status

R3-7.8 Mass Update Exception Report

NPAC SMS shall produce an exception report for Service Provider Personnel, via the NPAC Low-Tech Interface, and NPAC Personnel, via the NPAC Administrative Interface, when requested that lists the Subscription Versions that were exceptions not processed during Mass Update processing

RR3-254 Validation of LATA ID Errors on Mass Updates

NPAC SMS shall log an entry to be used for the mass update exception report when any of the LATA ID data edits are violated when mass updating a Subscription Version or Number Pool Block, and continue processing the mass update request (previously NANC 319 Req 10)

NPAC Data Administration

Note: In an example where 2000 SVs are being mass updated and 100 encountered LATA ID edit errors, the NPAC will perform the mass update by updating the 1900 SVs that are valid, and logging the remaining 100 SVs to be picked up on the mass update exception report

R3-7.9 Mass Update Required Entry of Service Provider ID

NPAC SMS shall require NPAC Personnel to specify a Service Provider ID when entering Selection Criteria for a Mass Update

R3-13 NPAC SMS mass change update capability to the Local SMS

NPAC SMS shall have the capability to identify all Subscription Versions affected by mass changes, (such as NPA splits), and automatically carry out the required updates to modified data in the Local SMSs

RR3-550 Mass Update Pending and Active Subscription Versions – DPC-SSN Field-level Data Validation

NPAC SMS shall perform field-level data validations to ensure that the values for the following input data, if supplied, is valid according to the Service Provider DPC-SSN source data, when performing a Mass Update of Pending and/or Active Subscription Versions via the NPAC Administrative Interface or NPAC Low-Tech Interface: (previously NANC 427, Req 6 8)

- Class DPC
- Class SSN
- LIDB DPC
- LIDB SSN
- CNAM DPC
- CNAM SSN
- ISVM DPC
- ISVM SSN
- WSMSC DPC
- WSMSC SSN

RR3-551 Mass Update Pending and Active Subscription Versions – Validation of DPC-SSNs for Mass Update

NPAC shall reject Mass Update requests of Pending and/or Active Subscription Versions from the NPAC Administrative Interface or NPAC Low-Tech Interface if a DPC-SSN is specified and a valid DPC-SSN reference does not exist in the Service Provider DPC-SSN source data (previously NANC 427, Req 6 9)

RR3-552 Mass Update Pending and Active Number Pool Blocks – DPC-SSN Field-level Data Validation

NPAC SMS shall perform field-level data validations to ensure that the values for the following input data, if supplied, is valid according to the Service Provider DPC-SSN source data, when performing a Mass Update of Pending and/or Active Number Pool Blocks via the NPAC Administrative Interface or NPAC Low-Tech Interface: (previously NANC 427, Req 6 10)

- Class DPC
- Class SSN
- LIDB DPC
- LIDB SSN
- CNAM DPC
- CNAM SSN
- ISVM DPC

- ISVM SSN
- WSMSC DPC
- WSMSC SSN

RR3-552.5 Mass Update Pending and Active Number Pool Blocks – Validation of DPC-SSNs for Mass Update

NPAC shall reject Mass Update requests of Pending and/or Active Number Pool Blocks from the NPAC Administrative Interface or NPAC Low-Tech Interface if a DPC-SSN is specified and a valid DPC-SSN reference does not exist in the Service Provider DPC-SSN source data (previously NANC 427, Req 6 11)

RR3-708 Mass Update – Notifications for Pseudo-LRN Updates

NPAC SMS shall only send notifications for a mass update when the Service Provider's SOA Pseudo-LRN Indicator is set to TRUE (previously NANC 442, Req 60)

RR3-780 Mass Update File Upload Capability – Template

NPAC Low-Tech Interface shall accept file data from a spreadsheet template as input data for a Mass Update request (previously NANC 444, Req 1)

Note: The accepted formats will be all standard MS-Excel (xlsx)

Note: The file layout will include:

- Header Data
 - Job Type (valid values: Mass Update, Mass Create, Mass Release, Mass Activate, Mass Disconnect, Create-Activate)
 - SPID (valid NPAC SPID value)
 - Select By (valid value: TN/PB List)
 - SV Status (valid values: Active-like)
 - Scheduled Date (mm/dd/yyyy hh:mm)
 - Case Number (optional, maximum 8 characters)
 - Job Name (optional, maximum 100 characters)
 - Suppress Notification to Old SP (valid values: TRUE, FALSE)
 - Suppress Notification to New SP (valid values: TRUE, FALSE)
- Detail Data: (specific to requested Job Type)
 - One line per TN/TN Range or PB/PB Range
 - TN example: 1112223333 or 1112223333-4444
 - PB example: 1234567 or 1234567-8
 - Update data will be column positional:
 - Column D – LRN (optional)
 - Column E – LIDB DPC (optional)
 - Column F – CNAM DPC (optional)
 - Column G – CLASS DPC (optional)
 - Column H – ISVM DPC (optional)
 - Column I – WSMSC DPC (optional, only if supported by SPID)

3.2.1 Block Holder, Mass Update

RR3-210 Block Holder Information Mass Update – Update Fields

NPAC SMS shall allow Service Provider Personnel, via the NPAC Low-Tech Interface, and NPAC Personnel, via the NPAC Administrative Interface, when performing a mass update, to update the block holder default routing information LRN, DPC(s), SSN(s), SV Type, Alternative SPID, Last Alternative SPID, Alt-End User Location Value, Alt-End User Location Type, Alt-Billing ID, Voice URI, MMS URI, and SMS URI for a 1K Block as stored in the NPAC SMS (Previously B-762, reference NANC 399)

RR3-211 Block Holder Information Mass Update – Block Intersection Rejection

NPAC SMS shall reject a mass update request by Service Provider Personnel, via the NPAC Low-Tech Interface, and NPAC Personnel, via the NPAC Administrative Interface, and issue an error message, if the TN Range and LNP Type of either POOL or none, is entered as Selection Criteria, for the requesting Service Provider, and intersects an existing 1K Block, for that requesting Service Provider, as stored in the NPAC SMS, other than Blocks with a status of old (Previously B-763)

RR3-212 Block Holder Information Mass Update – Block Status Validation

NPAC SMS shall reject a mass update request to a Block, if the Block's *status* is NOT active, or if the *Block Failed SP List* contains one or more Service Providers (Previously B-764)

RR3-213 Block Holder Information Mass Update – Download to Local SMS

NPAC SMS shall download Number Pooling Block Information, for mass updates, using the Number Pooling Block Object, via the NPAC SMS-to-Local SMS Interface, at the time of the mass update request (Previously B-780)

RR3-214 Block Holder Information Mass Update – Download to non-EDR Local SMS

DELETED

RR3-215 Block Holder Information Mass Update – Download of SVs of Type POOL to non-EDR Local SMS

DELETED

RR3-216 Block Holder Information Mass Update - Creation of Old Block

DELETED

RR3-217 Block Holder Information Mass Update - Old Block No Broadcast

DELETED

3.2.2 Service Provider ID (SPID) Migration Update

The following section defines how the NPAC SMS supports modification of Service Provider ID on Local Number Portability information. With the introduction of NANC 408 in NPAC SMS Release 3.4, two new aspects have been added, 1) an on-line self-service feature in the LTI that can be used by Service Provider Personnel optionally in lieu of spreadsheets submitted via e-mail to NPAC Personnel, and 2) an interface message enhancement that allows NPA-NXX ownership changes to be sent via a new mechanized interface message. NPAC Personnel will continue to generate Selection Input Criteria SPID Migration Update Request Files (SIC-SMURF) to all Service

Providers (as a primary means of update by those that do not support the new interface message to update their databases, and as a backup means of update for those that do support the new interface message) Additionally, SIC-SMURFs will be used by even Service Providers that support the interface message when the migration involves NPA-NXX-Xs and/or LRNs SIC-SMURFs are placed in all Service Providers' Secure FTP sites at the beginning of a maintenance window; updates are performed independently off-line during the maintenance window by each Service Provider to its own databases

3.2.2.1 SPID Migration Updates and Processing (NANC 323)

With functionality in NANC 323, SIC-SMURFs are generated by NPAC Personnel and distributed (via Secure FTP) to all Service Providers With the introduction of NANC 408, SPID Migrations may be performed as defined in sections 3 2 2 2 and 3 2 2 3

RR3-255 SPID Migration Update – OpGUI Entry

NPAC SMS shall allow NPAC Personnel, via the NPAC SMS Administrative Interface, to enter selection input criteria (mandatory: migrating away from SPID, migrating to SPID; at least one of the following three: NPA-NXX, LRN, and/or NPA-NXX-X) for a partial SPID Migration Update Request Process (previously NANC 323 Req 1)

RR3-256 SPID Migration Update – Generation of SIC-SMURF Files

NPAC SMS shall provide a mechanism that generates SIC-SMURF for NPA-NXX, LRN, and/or NPA-NXX-X upon completion of the entry of the selection input criteria in the NPAC SMS Administrative Interface, for a partial SPID Migration Update Request Process in the NPAC SMS (previously NANC 323 Req 2)

RR3-257 SPID Migration Update – NPAC SMS Processing of Requested Data

NPAC SMS shall provide a mechanism to migrate SPID information according to the requested selection input criteria, when changing from one SPID to another SPID in selected NPA-NXX, LRN, and/or NPA-NXX-X data, and subordinate Number Pool Block and Subscription Version data in the NPAC SMS (previously NANC 323 Req 3)

RR3-258 SPID Migration Update – Suppression of Notifications

NPAC SMS shall suppress notifications to all Service Providers via the SOA-to-NPAC SMS Interface and NPAC SMS-to-LSMS Interface, when performing the partial SPID Migration Update Request Process (previously NANC 323 Req 4)

RR3-259 SPID Migration Update – NPAC SMS Processing of Requested Data Based on Status

NPAC SMS shall migrate NPA-NXX, LRN, and/or NPA-NXX-X data, as well as Number Pool Block and Subscription Version data that have 'active-like' statuses when performing the partial SPID Migration Update Request Process (previously NANC 323 Req 5)

Notes:

- 'Active-like' Blocks or Subscription Versions are defined to be Blocks or Subscription Versions that contain a status of active, sending, partial failure, old with a Failed SP List, or disconnect pending
- 'Pending-like' Subscription Versions are defined to be Subscription Versions that contain a status of pending, conflict, cancel-pending, or failed These will be required to be cleaned-up (activated or cancelled) prior to the execution of the migration process, so that none exist during the migration process This includes pending-like PTO Subscription Versions, even though PTOs do not contain an LRN
- "Old" history data containing a status of cancelled or old with an empty FailedSP-List will NOT be migrated

RR3-260 SPID Migration Update – SIC-SMURF File Names

NPAC SMS shall follow the SIC-SMURF file naming convention as described in Appendix E (previously NANC 323 Req 6)

RR3-261 SPID Migration Update – SIC-SMURF File Formats

NPAC SMS shall follow the SIC-SMURF file format as described in Appendix E (previously NANC 323 Req 7)

RR3-262 SPID Migration Update – SIC-SMURF NPA-NXX File Processing – Update NPA-NXX Network Data

NPAC SMS shall use the SIC-SMURF NPA-NXX file to update the SPID associated with NPA-NXXs in the NPAC SMS, from the *migrating away from SPID* value to the *migrating to SPID* value, during the partial SPID Migration Update Request Process (previously NANC 323 Req 8)

RR3-263 SPID Migration Update – SIC-SMURF NPA-NXX File Processing – Update Old SPID on SV Data

DELETED

RR3-709 SPID Migration Update – SIC-SMURF NPA-NXX File Processing – Update SV Data for Pseudo-LRN Records

NPAC SMS shall update the new service provider SPID on subscription versions, where LRN equals 000-000-0000, associated with the NPA-NXX that was updated in the NPAC SMS, from the *migrating away from SPID* value to the *migrating to SPID* value, during the partial SPID Migration Update Request Process (previously NANC 442, Req 39)

RR3-710 SPID Migration Update – SIC-SMURF NPA-NXX File Processing – Update Block Data for Pseudo-LRN Records

NPAC SMS shall update the new service provider SPID on Number Pool Blocks, where LRN equals 000-000-0000, associated with the NPA-NXX that was updated in the NPAC SMS, from the *migrating away from SPID* value to the *migrating to SPID* value, during the partial SPID Migration Update Request Process (previously NANC 442, Req 40)

RR3-264 SPID Migration Update – SIC-SMURF LRN File Processing – Update LRN Data

NPAC SMS shall use the SIC-SMURF LRN file to update the SPID associated with LRNs in the NPAC SMS, from the *migrating away from SPID* value to the *migrating to SPID* value, during the partial SPID Migration Update Request Process (previously NANC 323 Req 10)

RR3-265 SPID Migration Update – SIC-SMURF LRN File Processing – Update Block Data

NPAC SMS shall update the blockholder SPID on Number Pool Blocks associated with the LRN that was updated in the NPAC SMS, from the *migrating away from SPID* value to the *migrating to SPID* value, during the partial SPID Migration Update Request Process (previously NANC 323 Req 11)

RR3-266 SPID Migration Update – SIC-SMURF LRN File Processing – Update SV Data

NPAC SMS shall update the new service provider SPID on subscription versions, regardless of LNP Type, associated with the LRN that was updated in the NPAC SMS, from the *migrating away from SPID* value to the *migrating to SPID* value, during the partial SPID Migration Update Request Process (previously NANC 323 Req 12)

RR3-267 SPID Migration Update – SIC-SMURF NPA-NXX-X File Processing – Update NPA-NXX-X

NPAC SMS shall use the SIC-SMURF NPA-NXX-X file to update the SPID associated with NPA-NXX-Xs in the NPAC SMS, from the *migrating away from SPID* value to the *migrating to SPID* value, during the partial SPID Migration Update Request Process (previously NANC 323 Req 13)

RR3-268 SPID Migration Update – Maximum Level of Granularity

NPAC SMS shall perform the partial SPID Migration Update Request Process at a maximum level of granularity of a single SPID (previously NANC 323 Req 14)

RR3-269 SPID Migration Update – Minimum Level of Granularity

NPAC SMS shall perform the partial SPID Migration Update Request Process at a minimum level of granularity of an NPA-NXX-X (previously NANC 323 Req 15)

RR3-270 SPID Migration Update – Creation of Number Pool Block for Old Service Provider

DELETED

RR3-271 SPID Migration Update – Creation of Number Pool Block for Old Service Provider – No Broadcast

DELETED

RR3-272 SPID Migration Update – Creation of Subscription Version for Old Service Provider

DELETED

RR3-273 SPID Migration Update – Creation of Subscription Version for Old Service Provider – No Broadcast

DELETED

RR3-274 SPID Migration Update – Exclusion of Data During Recovery

NPAC SMS shall exclude data in a recovery request for activity related to partial SPID Migration Update Request Process activity (previously NANC 323 Req 20)

RR3-275 SPID Migration Update – Rejection for ‘pending-like’ Number Pool Blocks or Subscription Versions

NPAC SMS shall reject a SPID Migration Update Request Process by NPAC Personnel, via the NPAC SMS Administrative Interface, if any “pending-like” Number Pool Blocks or Subscription Versions exist where the *migrating away from SPID* value is present (previously NANC 323 Req 21)

Note: For Number Pool Blocks this will be the Block Holder SPID, and for Subscription Versions this will be either the New SPID or Old SPID

Note: This applies to pending-like records where the OSP (migrating-from SPID) is either the code holder or the block holder, and also pending-like records where the previous port is an active record (migrating-from SPID is the NSP) that is being migrated (e.g., SV1 is active and will be migrated, SV2 is pending-like and will be cancelled). This also includes pending-like PTO Subscription Versions, even though PTOs do not contain an LRN.

RR3-276 Update SPID on Messages Queued for Recovery

NPAC SMS shall apply the SPID update to any messages that are in the queue for recovery (previously NANC 323 Req 24).

Note: This applies only to the CMIP Interface.

RR3-277 SPID Migration Update – Consistency Check Across Network Data and LRN

NPAC SMS shall perform a consistency check across the selection criteria for NPA-NXX, LRN, and/or NPA-NXX-X, to ensure applicable data belonging to the *migrating away from SPID* is included in the SMURF files for NPA-NXX, LRN, and/or NPA-NXX-X, and issue an error to NPAC Personnel, during the partial SPID Migration Update Request Process (previously NANC 323 Req 25).

Note: The selection criteria of network data and/or LRN will have consistency edits enforced. In the case where all applicable data are NOT in the selection criteria, an error will be issued to the NPAC Personnel. As an example, NPA-NXX of 703-222 is owned by the *migrating from SPID*, which also uses 703-222-0000 as its primary LRN, and has an Number Pool Block of 703-567-2 which uses the 703-222-0000 LRN. When performing the input data for the migration, only one of these are specified as selection criteria, which will cause an error to be issued to the NPAC user. The NPA-NXX, LRN, and NPA-NXX-X must all be specified for the migration process to continue and generate the correct SMURF files.

3.2.2.2 SPID Migration Online GUI (NANC 408)

Online GUI functionality allows a Service Provider to perform self-service on entry of SPID Migrations.

RR3-553 Regional SPID Migration Online Functionality Indicator – Tunable Parameter

NPAC SMS shall provide a Regional SPID Migration Online Functionality Indicator tunable parameter, which is defined as an indicator on whether or not SPID Migration Online Functionality capability will be supported by the NPAC SMS for a particular NPAC region (previously NANC 408, Req 12).

RR3-554 Regional SPID Migration Online Functionality Indicator – Tunable Parameter Default

NPAC SMS shall default the SPID Migration Online Functionality Indicator tunable parameter to TRUE (previously NANC 408, Req 13).

RR3-555 Regional SPID Migration Online Functionality Indicator – Tunable Parameter Modification

NPAC SMS shall allow NPAC SMS Personnel, via the NPAC Administrative Interface, to modify the SPID Migration Online Functionality Indicator tunable parameter (previously NANC 408, Req 14).

RR3-556 SPID Migration Blackout Dates – GUI Entry By NPAC Personnel

NPAC SMS shall allow NPAC Personnel via the NPAC Administrative Interface, to add and remove SPID migration Blackout dates (previously NANC 408, Req X1).

RR3-557 SPID Migration Blackout Dates – Displaying in the GUI

The NPAC SMS shall allow Service Provider Personnel, via the NPAC Low-Tech Interface, and NPAC Personnel, via the NPAC Administrative Interface, to view SPID Migration Blackout Dates (previously NANC 408, Req X2).

RR3-558 SPID Migration Last Scheduling Date - Tunable Parameter

NPAC SMS shall provide a Regional SPID Migration Last Scheduling Date tunable parameter, which is defined as the last date that a SPID Migration may be entered into the NPAC system (previously NANC 408, Req X3)

Note: This tunable date is used to make sure SPID Migrations are not scheduled in the GUI for dates when the Blackout Dates have not been specified by LNPAWG and/or entered into the NPAC system

RR3-559 SPID Migration Last Scheduling Date – Tunable Parameter Default

NPAC SMS shall default the SPID Migration Last Scheduling Date tunable parameter to none (previously NANC 408, Req X4)

RR3-560 SPID Migration Last Scheduling Date – Tunable Parameter Modification

NPAC SMS shall allow NPAC SMS Personnel, via the NPAC Administrative Interface, to modify the SPID Migration Last Scheduling Date tunable parameter (previously NANC 408, Req X5)

RR3-561 SPID Migration Entry Restriction - Last Scheduling Date – Service Provider Personnel

NPAC SMS shall reject a SPID Migration request from Service Provider Personnel, via the NPAC Low-Tech Interface, that has a scheduled date beyond the SPID Migration Last Scheduling Date (previously NANC 408, Req X6)

RR3-562 SPID Migration Update – Migration Summary Information

NPAC SMS shall, via the NPAC Low-Tech Interface and NPAC Administrative Interface, show the following information for each maintenance day: (previously NANC 408, Req X7)

- Maintenance date
- Total SV count for pending and approved migrations
- Total number of migrations in the region for pending and approved migrations
- Total number of migrations for all regions for pending and approved migrations
- Total quota for SV count and migration count in each region and migration count for all regions

RR3-563 SPID Migration Update – GUI Availability/Selection function for Service Provider and NPAC Personnel

NPAC SMS shall allow Service Provider Personnel, via the NPAC Low-Tech Interface, and NPAC Personnel, via the NPAC Administrative Interface, to query for available SPID Migration timeslots (previously NANC 408, Req 1)

RR3-564 SPID Migration Update – Available Migration Window Minimum – Tunable Parameter

NPAC SMS shall provide a SPID Migration Available Migration Window Minimum tunable parameter, which is defined as the minimum length of time between the current date (exclusive) and the SPID Migration date (inclusive), when a Service Provider requests to see available SPID Migration timeslots (previously NANC 408, Req 1 1)

RR3-565 SPID Migration Update – Available Migration Window Minimum – Reject

The NPAC SMS shall reject a request from a Service Provider, via the NPAC Low-Tech Interface, if the length of time between the current date and the SPID Migration date is less than the Available Migration Window Minimum tunable (previously NANC 408, Req X8)

RR3-566 SPID Migration Update - NPAC Personnel Scheduling SPID Migrations to Any Migration Date in the Future

NPAC SMS shall allow NPAC Personnel to schedule a SPID migration to any migration date in the future after providing a warning if the SPID migration is scheduled to a date earlier than SPID migration creation date plus the Available Migration Window Minimum tunable (previously NANC 408, Req X9)

RR3-567 SPID Migration Update – Available Migration Window Minimum – Tunable Parameter Default

NPAC SMS shall default the SPID Migration Available Migration Window Minimum tunable parameter to thirty-two (32) calendar days (previously NANC 408, Req X1 2)

RR3-568 SPID Migration Update – Available Migration Window Minimum – Tunable Parameter Modification

NPAC SMS shall allow NPAC SMS Personnel, via the NPAC Administrative Interface, to modify the SPID Migration Available Migration Window Minimum tunable parameter (previously NANC 408, Req X1 3)

RR3-569 SPID Migration Update – GUI Entry by Service Provider and NPAC Personnel

NPAC SMS shall allow Service Provider Personnel, via the NPAC Low-Tech Interface, and NPAC Personnel, via the NPAC Administrative Interface, to “select and request” a SPID Migration, by entering selection input criteria (mandatory: migrating away from SPID, migrating to SPID; at least one of the following three: NPA-NXX, LRN, and/or NPA-NXX-X) for a partial SPID Migration Update Request Process (previously NANC 408, Req 2)

RR3-570 SPID Migration Update – GUI Entry by Service Provider and NPAC Personnel – Required Fields

NPAC SMS shall require the originator of a SPID Migration to enter the following fields: (previously NANC 408, Req X10)

- From SPID
- To SPID
- Scheduled Date
- Contact Information
- NPA-NXX ownership effective date (if NPA-NXX is included in the Migration)
- at least one of the following three: NPA-NXX, LRN, and/or NPA-NXX-X
- Pseudo-LRN SV/NPB migration indicator (if any exist, YES/NO)

Note: A Migration request that includes only NPA-NXXs is considered an “online” migration that will be sent over the mechanized interface to Service Providers that support the functionality (SMURF data will be used by Service Providers that do not support the functionality) If migration data includes at least one NPA-NXX-X or LRN, it is considered “offline” and all Service Providers will use SMURF data A migration request that includes only NPA-NXXs is considered “offline” if pseudo-LRN SVs/NPBs exist within at least one of those NPA-NXXs

Note: The pseudo-LRN migration indicator field is used for information purposes to NPAC Personnel to determine appropriate M&Ps If any pseudo-LRN SVs/NPBs exist at the time of migration, they will get migrated per requirements RR3-709 and RR3-710

RR3-571 SPID Migration Update – Generation of SPID Migration Name

NPAC SMS shall automatically generate the SPID Migration Name field that conforms to the SPID Migration naming convention <From SPID>_<To SPID>_<Scheduled Date> (Example: 1111_2222_09282009) (previously NANC 408, Req X11)

RR3-572 SPID Migration Update – GUI Modification by Service Provider Prior to Other Service Provider Concurrence or NPAC Personnel Approval

NPAC SMS shall allow Service Provider Personnel, via the NPAC Low-Tech Interface, to modify a currently scheduled SPID Migration that they entered, only if the other Service Provider has not concurred, and NPAC Personnel have not approved the SPID Migration (previously NANC 408, Req 2 0 1)

Note: Migration data (e.g., NPA-NXX, LRN) is modifiable SPID value is not modifiable

RR3-573 SPID Migration Update – GUI Cancellation by Service Provider Prior to NPAC Personnel Approval

NPAC SMS shall allow Service Provider Personnel, via the NPAC Low-Tech Interface, to cancel a currently scheduled SPID Migration that they entered, only if the other Service Provider has not concurred, and NPAC Personnel have not approved the SPID Migration (previously NANC 408, Req 2 1)

RR3-574 SPID Migration Update – GUI Error for Double Booking

NPAC SMS shall reject a request from Service Provider Personnel, via the NPAC Low-Tech Interface, for a SPID Migration when the requested data is already part of a pending SPID Migration request (previously NANC 408, Req 2 2)

RR3-575 SPID Migration Update – GUI Concurrence by Other Service Provider and NPAC Personnel

NPAC SMS shall allow Service Provider Personnel, via the NPAC Low-Tech Interface, and NPAC Personnel, via the NPAC Administrative Interface, to concur a previously entered SPID Migration (previously NANC 408, Req X12)

RR3-576 SPID Migration Creation by “migrating-from” and “migrating-to” SPIDs

NPAC SMS shall allow either the ‘migrating-from’ or ‘migrating-to’ service provider to be the first Service Provider to enter a SPID Migration (previously NANC 408, Req X13)

RR3-577 SPID Migration Update – GUI Entry Service Provider – Approval by NPAC Personnel

NPAC SMS shall, via the NPAC Administrative Interface, require NPAC Personnel to “approve” a SPID Migration as defined in RR3-569 (previously NANC 408, Req 3)

Note: In an A-to-B migration, “approval” will involve validation by SPID A M&Ps will be defined for this function

RR3-578 SPID Migration Update – Approval by NPAC Personnel Required

NPAC SMS shall require Service Provider concurrence as well as approval by NPAC personnel before performing a SPID Migration (previously NANC 408, Req X14)

RR3-579 SPID Migration Update – Cancel by NPAC Personnel

NPAC SMS shall require NPAC Personnel, via the NPAC Administrative Interface, to enter a cancellation reason text anytime a SPID Migration is cancelled (previously NANC 408, Req X15)

RR3-580 SPID Migration Update - Service Providers Viewing Migrations

NPAC SMS shall allow service providers to view all SPID migrations that have been approved by NPAC Personnel (previously NANC 408, Req X16)

RR3-581 SPID Migration Update - Service Providers Viewing Their Own Migrations

NPAC SMS shall allow only the ‘migrating-from’ or ‘migrating-to’ Service providers to view SPID migrations that haven’t been approved by NPAC Personnel (previously NANC 408, Req X17)

RR3-582 SPID Migration Creation – “Re-work” Option for Cancelled SPID Migrations

DELETED

RR3-583 SPID Migration Creation – Disallowing Scheduling of Two SPID Migrations with the same “Migrating-From” and “Migrating-To” SPID to the same Maintenance Day

NPAC SMS shall disallow scheduling of two SPID Migrations with the same “Migrating-From” and “Migrating-To” SPID to the same Maintenance Day (previously NANC 408, Req X19)

RR3-584 SPID Migration Email List - Tunable Parameter

NPAC SMS shall provide a Service Provider SPID Migration Email List tunable parameter, which is defined as the email address(es) that are notified of SPID Migration operations (previously NANC 408, Req X20)

RR3-585 SPID Migration Email List – Tunable Parameter Default

NPAC SMS shall default the SPID Migration Email List tunable parameter to <empty> (previously NANC 408, Req X21)

RR3-586 SPID Migration Email List – Tunable Parameter Modification

NPAC SMS shall allow NPAC SMS Personnel, via the NPAC Administrative Interface, to modify the SPID Migration Email List tunable parameter (previously NANC 408, Req X22)

RR3-587 SPID Migration E-mail due to NPAC Personnel Operations

NPAC SMS shall send e-mail notifications to all Service Providers for the following SPID Migration operations when performed by NPAC Personnel: (previously NANC 408, Req X23)

- approval of a SPID Migration
- modification of an approved SPID Migration
- cancellation of an approved SPID Migration

RR3-588 SPID Migration E-mail to “migrating-from” and “migrating-to” Service Providers

NPAC SMS shall send e-mail notifications to the “migrating-from” and “migrating-to” Service Providers for the following SPID Migration operations: (previously NANC 408, Req X24)

- creation of a new SPID Migration
- concurrence of an existing SPID Migration
- modification of an existing SPID Migration
- cancellation of an existing SPID Migration

RR3-589 SPID Migration Update – GUI Cancellation by NPAC Personnel on behalf of Service Provider

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to cancel a currently scheduled SPID Migration on behalf of a migrating-to SPID or migrating-from SPID (previously NANC 408, Req 8 1)

RR3-590 SPID Migration Update – GUI Modification by NPAC Personnel of Scheduled SPID Migration

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify a currently scheduled SPID Migration on behalf of a migrating-to SPID or migrating-from SPID (previously NANC 408, Req 8 2)

Note: Migration data (e g , NPA-NXX, LRN) is modifiable SPID value is not modifiable

RR3-591 SPID Migration Update – GUI Execution by NPAC Personnel of Scheduled SPID Migration

NPAC SMS shall, via the NPAC Administrative Interface, allow NPAC Personnel to execute a previously scheduled SPID Migration, in cases when there are no active-like subscription versions or Number Pool Blocks (quantity of zero) that would have the New SPID value changed in that NPA-NXX that is being migrated (previously NANC 408, Req 9)

Note: This online activity allows a SPID Migration that will modify the NPA-NXX Service Provider ID (code owner) Unlike other SPID Migration activity (i e , SMURF file generation), this function is allowed during any NPAC uptime ‘Active-like’ Subscription Versions are defined as Subscription Versions that contain a status of active, sending, partial failure, old with a Failed SP List, or disconnect pending M&Ps will indicate that this online activity (the actual execution) will be performed as close to the Maintenance window as practical Online GUI execution works on an all-or-nothing basis (e g , if attempting to modify five NPA-NXXs, and three of the five have zero SVs/NPBs, but two of the five have some SVs/NPBs, then the entire request of five will fail)

RR3-592 SPID Migration Update – GUI Execution by NPAC Personnel – Notification to Local SMS and SOA

NPAC SMS shall notify all accepting Local SMSs and SOAs of the modification of the NPA-NXX owning Service Provider, immediately after validation of a SPID Migration as defined in RR3-591 (previously NANC 408, Req 10)

Note: In conjunction with the online GUI activity defined in RR3-591, the message will be sent out prior to the beginning of the maintenance window

Note: To maintain consistency with SMURF Files, SPID Migration transactions sent over the interface will not apply NPA-NXX filters for the given Service Provider

RR3-593 SPID Migration Update – Pending-Like SVs and NPBs Cleaned Up

NPAC SMS shall clean up pending-like Subscription Versions and Number Pool Blocks at the time of SPID Migration where the migrating-from Service Provider in the NPA-NXX that is being migrated is present in those Subscription Versions or Number Pool Blocks, by setting the status to Cancelled (previously NANC 408, Req 11)

Note: For Number Pool Blocks this will be the Block Holder SPID, and for Subscription Versions this will be either the New SPID or Old SPID

Note: This applies to pending-like records where the OSP (migrating-from SPID) is either the code holder or the block holder, and also pending-like records where the previous port is an active record (migrating-from SPID is the NSP) that is being migrated (e g , SV1 is active and will be migrated, SV2 is pending-like and will be cancelled)

RR3-594 Completed SPID Migration Retention – Tunable Parameter

NPAC SMS shall provide a Regional Completed SPID Migration Retention tunable parameter, which is defined as the number of days before a completed SPID Migration will be purged from the database (previously NANC 408, Req X26)

RR3-595 Completed SPID Migration Retention – Tunable Parameter Default

NPAC SMS shall default the Completed SPID Migration Retention tunable parameter to 365 days (previously NANC 408, Req X27)

RR3-596 Completed SPID Migration Retention – Tunable Parameter Modification

NPAC SMS shall allow NPAC SMS Personnel, via the NPAC Administrative Interface, to modify the SPID Migration Completed Migrations Retention tunable parameter (previously NANC 408, Req X28)

RR3-597 Completed SPID Migration Retention – Housekeeping Purge

NPAC SMS shall purge completed SPID Migrations from the database after tunable Completed SPID Migration Retention days have passed since the completion of the SPID Migration (previously NANC 408, Req X29)

RR3-598 Cancelled SPID Migration Retention - Tunable Parameter

NPAC SMS shall provide a Regional Cancelled SPID Migration Retention tunable parameter, which is defined as the number of days before a cancelled SPID Migration will be purged from the database (previously NANC 408, Req X30)

RR3-599 Cancelled SPID Migration Retention – Tunable Parameter Default

NPAC SMS shall default the Cancelled SPID Migration Retention tunable parameter to 365 days (previously NANC 408, Req X31)

RR3-600 Cancelled SPID Migration Retention – Tunable Parameter Modification

NPAC SMS shall allow NPAC SMS Personnel, via the NPAC Administrative Interface, to modify the Cancelled SPID Migration Retention tunable parameter (previously NANC 408, Req X32)

RR3-601 Cancelled SPID Migration Retention – Housekeeping Purge

NPAC SMS shall purge cancelled SPID Migrations from the database after tunable Cancelled SPID Migration Retention days have passed since the cancellation of the SPID Migration (previously NANC 408, Req X33)

RR3-602 SPID Migration Update – Quota Management

NPAC SMS shall apply quota to SPID Migration operations for Total US SPID Migrations, Total Regional Migrations, and Regional SV Counts when NPAC Personnel approve a SPID migration (previously NANC 408, Req X34)

RR3-603 SPID Migration Update – Quota Management – Quota Exceeded Rejection for Service Provider Personnel

NPAC SMS shall check quota to SPID Migration operations when a Service Provider creates or modifies a SPID Migration and reject the request if any of the quotas have been exceeded (previously NANC 408, Req X35)

RR3-604 SPID Migration Update – Quota Management – Quota Exceeded Warning for NPAC Personnel

NPAC SMS shall check quota to SPID Migration operations when NPAC Personnel creates or modifies a SPID Migration and provide a warning if any of the quotas have been exceeded (previously NANC 408, Req X35 5)

RR3-605 SPID Migration Update – Quota Management – Quota Exceeded Warning Content

NPAC SMS shall include the Pending and Approved counts for all exceeded quotas in the Quota Exceeded Warning Message (previously NANC 408, Req X36)

RR3-606 SPID Migration Update – Migration Quota Tunable Parameter

NPAC SMS shall provide a SPID Migration Quota tunable parameter, which is defined as the maximum number of SPID Migration timeslots within a region for a given SPID Migration maintenance window (previously NANC 408, Req 27)

RR3-607 SPID Migration Update – Migration Quota Tunable Parameter Default

NPAC SMS shall default the SPID Migration Quota tunable parameter to seven (7) migrations (previously NANC 408, Req 28)

RR3-608 SPID Migration Update – Migration Quota Tunable Parameter Modification

NPAC SMS shall allow NPAC SMS Personnel, via the NPAC Administrative Interface, to modify the SPID Migration Quota tunable parameter (previously NANC 408, Req 29)

RR3-609 SPID Migration Update – All Regions Migration Quota Tunable Parameter

NPAC SMS shall provide an All Regions SPID Migration Quota tunable parameter, which is defined as the maximum number of SPID Migrations timeslots for all regions for a given SPID Migration maintenance window (previously NANC 408, Req 30)

RR3-610 SPID Migration Update – All Regions Migration Quota Tunable Parameter Default

NPAC SMS shall default the All Regions SPID Migration Quota tunable parameter to twenty-five (25) migrations (previously NANC 408, Req 31)

RR3-611 SPID Migration Update – All Regions Migration Quota Tunable Parameter Modification

NPAC SMS shall allow NPAC SMS Personnel, via the NPAC Administrative Interface, to modify the All Regions SPID Migration Quota tunable parameter (previously NANC 408, Req 32)

RR3-612 SPID Migration Update – SV Quota Tunable Parameter

NPAC SMS shall provide a SPID Migration SV Quota tunable parameter, which is defined as the maximum number of SVs within a region for a given SPID Migration maintenance window (previously NANC 408, Req 35)

NOTE: The number includes both ported and pooled SVs

NOTE: The quantity of SVs can be dynamic, so the quantity is based on the number of SVs for a given migration at the time of the SPID Migration request For subsequent migrations in a given window, the previous SPID Migration SV quantities are not recalculated Modifying a SPID Migration will cause SV quantities to be recalculated

RR3-613 SPID Migration Update – SV Quota Tunable Parameter Default

NPAC SMS shall default the SPID Migration SV Quota tunable parameter to five hundred thousand (500,000) SVs (previously NANC 408, Req 36)

RR3-614 SPID Migration Update – SV Quota Tunable Parameter Modification

NPAC SMS shall allow NPAC SMS Personnel, via the NPAC Administrative Interface, to modify the SPID Migration SV Quota tunable parameter (previously NANC 408, Req 37)

RR3-615 Maintenance Window Day of the Week - Tunable Parameter

NPAC SMS shall provide a Regional Maintenance Window Day of the Week tunable parameter, which is defined as the day of the week in which SPID Migrations are performed (previously NANC 408, Req X37)

RR3-616 Maintenance Window Day of the Week – Tunable Parameter Default

NPAC SMS shall default the Maintenance Window Day of the Week tunable parameter to “SU” (Sunday) (previously NANC 408, Req X38)

RR3-617 Maintenance Window Day of the Week – Tunable Parameter Modification

NPAC SMS shall allow NPAC SMS Personnel, via the NPAC Administrative Interface, to modify the Maintenance Window Day of the Week tunable parameter (previously NANC 408, Req X39)

RR3-618 Maintenance Window Start Time Hour - Tunable Parameter

NPAC SMS shall provide a Regional Maintenance Window Start Time Hour tunable parameter, which is defined as the hour in which the weekly Service Provider maintenance window begins (previously NANC 408, Req X40)

RR3-619 Maintenance Window Start Time Hour – Tunable Parameter Default

NPAC SMS shall default the Maintenance Window Start Time Hour tunable parameter to midnight (Central Time Zone) (previously NANC 408, Req X41)

RR3-620 Maintenance Window Start Time Hour – Tunable Parameter Modification

NPAC SMS shall allow NPAC SMS Personnel, via the NPAC Administrative Interface, to modify the Maintenance Window Start Time Hour tunable parameter (previously NANC 408, Req X42)

RR3-621 Preliminary SPID Migration SMURF Files Lead Time - Tunable Parameter

NPAC SMS shall provide a Regional Preliminary SPID Migration SMURF Files Lead Time tunable parameter, which is defined as the number of days before a SPID Migration scheduled date when the Preliminary SMURF files are automatically generated (previously NANC 408, Req X47)

RR3-622 Preliminary SPID Migration SMURF Files Lead Time – Tunable Parameter Default

NPAC SMS shall default the Online SPID Migration SMURF Lead Time tunable parameter to 10 days (previously NANC 408, Req X48)

RR3-623 Preliminary SPID Migration SMURF Files Lead Time – Tunable Parameter Modification

NPAC SMS shall allow NPAC SMS Personnel, via the NPAC Administrative Interface, to modify the Preliminary SPID Migration SMURF Files Lead Time tunable parameter (previously NANC 408, Req X49)

RR3-624 Generation of Preliminary SMURF files

NPAC SMS shall generate and distribute Preliminary SMURF files for a SPID Migration tunable days (tunable Preliminary SPID Migration SMURF Files Lead Time) prior to the scheduled date for the SPID Migration (previously NANC 408, Req X50)

RR3-625 Generation of Final SMURF files

NPAC SMS shall generate and distribute the Final SMURF files for a SPID Migration at the start of the Service Provider Maintenance Window, in which the SPID Migration will be executed (previously NANC 408, Req X51)

RR3-626 Offline-Only SPID Migration Flag

NPAC SMS shall allow NPAC SMS Personnel, via the NPAC Administrative Interface, to modify a SPID Migration and set the Offline-Only indicator (previously NANC 408, Req X52)

NOTE: The migration will be treated as offline when the indicator is set to TRUE, and treated as online when set to FALSE. There are no restrictions on multiple updates to the indicator.

RR3-627 SPID Migration Suspended Status

NPAC SMS shall allow NPAC SMS Personnel, via the NPAC Administrative Interface, to modify a SPID Migration to a status of Suspended (previously NANC 408, Req X53)

RR3-628 Suspended SPID Migrations – No Automatic Online Migration

NPAC SMS shall skip SPID Migrations with a status of suspended when automatically executing online SPID Migrations (previously NANC 408, Req X54)

RR3-629 Suspended SPID Migrations – No Manual Online Migration

NPAC SMS shall reject requests via the NPAC Administrative Interface, to execute online SPID Migrations with a status of suspended (previously NANC 408, Req X55)

RR3-630 SPID Migration Suspension/Un-suspension – No Quota Change

NPAC SMS shall not adjust its quota on a maintenance day when a SPID Migration scheduled to this date is suspended or un-suspended (previously NANC 408, Req X56)

RR3-631 Automatic suspension when pre-migration validations fail

NPAC SMS shall suspend a SPID migration if the network data validations fail during the preprocessing of the SPID migration (previously NANC 408, Req X57)

RR3-632 SPID Migration - Secure FTP Site Directory Structure

NPAC SMS shall include the scheduled date of the SPID Migration as a subdirectory where SPID Migration SMURF files are stored if the Service Provider tunable SPID Migration Date Subdirectory Indicator is set to TRUE (previously NANC 408, Req X58)

RR3-632.5 SPID Migration - Secure FTP Site Subdirectory – Service Provider Tunable

NPAC SMS shall provide a Service Provider SPID Migration FTP Date Subdirectory Indicator is tunable parameter which defines whether a subdirectory for each SPID Migration will be created (previously NANC 408, Req X59)

RR3-633 SPID Migration – Secure FTP Site Date Subdirectory - Service Provider Indicator Default

NPAC SMS shall default the Service Provider SPID Migration Secure FTP Date Subdirectory Indicator tunable parameter to FALSE (previously NANC 408, Req X60)

RR3-634 SPID Migration – Secure FTP Site Date Subdirectory – Service Provider Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider SPID Migration Secure FTP Date Subdirectory Indicator tunable parameter (previously NANC 408, Req X61)

RR3-711 SPID Migration –Service Provider GUI Login Restriction

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to identify each Service Provider GUI user's login as either authorized or not-authorized for SPID Migration GUI access (previously NANC 408, Req X62)

RR3-712 SPID Migration – Pseudo-LRN Indicator

NPAC SMS shall provide a SPID Migration Pseudo-LRN Indicator on the SPID Migration GUI, which is defined as an indicator on whether or not the requesting Service Provider desires any existing pseudo-LRN records to be migrated (previously NANC 442, Req 84)

NOTE: The indicator is used for NPAC Personnel operations, and not an indicator on whether or not pseudo-LRN records will get migrated Per requirements RR3-709 and RR3-710, pseudo-LRN records will get migrated during a SPID Migration

RR3-762 SPID Migration Update – Online-to-Offline Restriction Window – Tunable Parameter

NPAC SMS shall provide a SPID Migration Online-to-Offline Restriction Window tunable parameter, which is defined as the number of calendar days between the current date (exclusive) and the SPID Migration date (inclusive), that a change is **not** allowed to the Service Provider's data associated with SPID Migration data that would cause the SPID Migration to move from online-to-offline (previously NANC 408, Req X63)

Note: An example of the Service Provider's data associated with SPID Migration data is the addition of an LRN where the first six digits of the LRN are the same value as one of the NPA-XXX records specified in the SPID Migration data Both Service Providers and NPAC Personnel would receive an error message when attempting to create such an LRN

Note: NPAC Personnel will have override capability within the restriction window for emergency purposes

RR3-763 SPID Migration Update – Online-to-Offline Restriction Window – Tunable Parameter Default

NPAC SMS shall default the SPID Migration Online-to-Offline Restriction Window tunable parameter to fourteen (14) calendar days (previously NANC 408, Req X64)

RR3-764 SPID Migration Update – Online-to-Offline Restriction Window – Tunable Parameter Modification

NPAC SMS shall allow NPAC SMS Personnel, via the NPAC Administrative Interface, to modify the SPID Migration Online-to-Offline Restriction Window tunable parameter (previously NANC 408, Req X65)

RR3-765 SPID Migration Update – SPID Migration Date Restriction Window – Tunable Parameter

NPAC SMS shall provide a SPID Migration Date Restriction Window tunable parameter, which is defined as the number of calendar days (inclusive) that a SPID Migration is allowed prior to the SPID Migration Effective Date (previously NANC 408, Req X66)

Note: NPAC Personnel will have override capability within the restriction window for emergency purposes

RR3-766 SPID Migration Update – SPID Migration Date Restriction Window – Tunable Parameter Default

NPAC SMS shall default the SPID Migration Date Restriction Window tunable parameter to three (3) calendar days (previously NANC 408, Req X67)

RR3-767 SPID Migration Update – SPID Migration Date Restriction Window – Tunable Parameter Modification

NPAC SMS shall allow NPAC SMS Personnel, via the NPAC Administrative Interface, to modify the SPID Migration Date Restriction Window tunable parameter (previously NANC 408, Req X68)

3.2.2.3 SPID Migration Interface Messages (NANC 408)

Interface messages for code-only migrations are sent to Service Providers that support the feature

RR3-635 Service Provider SOA Automated SPID Migration Indicator

NPAC SMS shall provide a Service Provider SOA Automated SPID Migration Indicator tunable parameter which defines whether a SOA will receive/not-receive automated SPID Migration transactions over their SOA connection (previously NANC 408, Req 15)

RR3-636 Service Provider SOA Automated SPID Migration Indicator Default

NPAC SMS shall default the Service Provider SOA Automated SPID Migration Indicator tunable parameter to FALSE (previously NANC 408, Req 15 1)

RR3-637 Service Provider SOA Automated SPID Migration Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider SOA Automated SPID Migration Indicator tunable parameter (previously NANC 408, Req 16)

RR3-638 Service Provider SOA Automated SPID Migration Indicator Usage

NPAC SMS shall send automated SPID Migration transactions over the SOA connection only when the Service Provider SOA Automated SPID Migration Indicator tunable parameter is set to TRUE (previously NANC 408, Req 17)

NOTE: To maintain consistency with SMURF Files, SPID Migration transactions sent over the interface will not apply NPA-NXX filters for the given Service Provider

RR3-639 Service Provider LSMS Automated SPID Migration Indicator

NPAC SMS shall provide a Service Provider LSMS Automated SPID Migration Indicator tunable parameter which defines whether an LSMS will receive/not-receive automated SPID Migration transactions over their LSMS connection (previously NANC 408, Req 18)

RR3-640 Service Provider LSMS Automated SPID Migration Indicator Default

NPAC SMS shall default the Service Provider LSMS Automated SPID Migration Indicator tunable parameter to FALSE (previously NANC 408, Req 18 1)

RR3-641 Service Provider LSMS Automated SPID Migration Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider LSMS Automated SPID Migration Indicator tunable parameter (previously NANC 408, Req 19)

RR3-642 Service Provider LSMS Automated SPID Migration Indicator Usage

NPAC SMS shall send automated SPID Migration transactions over the LSMS connection only when the Service Provider LSMS Automated SPID Migration Indicator tunable parameter is set to TRUE (previously NANC 408, Req 20)

NOTE: To maintain consistency with SMURFs, SPID Migration transactions sent over the interface will not apply NPA-NXX filters for the given Service Provider

RR3-643 Service Provider Secure FTP SMURF File

NPAC SMS shall provide SMURF Files in a Service Provider's Secure FTP directory (previously NANC 408, Req 34)

Note: This is the mechanism that providers that support the interface message will be expected to recover missed SPID migration messages Based on FRS requirement RR3-274 the NPAC does not include SPID migration data in the recovery messages sent over the CMIP interface

RR3-644 Online SPID Migration Lead Time - Tunable Parameter

NPAC SMS shall provide a Regional Online SPID Migration Lead Time tunable parameter, which is defined as the minutes before the maintenance window that online SPID Migrations will be performed (previously NANC 408, Req X43)

RR3-645 Online SPID Migration Lead Time – Tunable Parameter Default

NPAC SMS shall default the Online SPID Migration Lead Time tunable parameter to 90 minutes (previously NANC 408, Req X44)

RR3-646 Online SPID Migration Lead Time – Tunable Parameter Modification

NPAC SMS shall allow NPAC SMS Personnel, via the NPAC Administrative Interface, to modify the Online SPID Migration Lead Time tunable parameter (previously NANC 408, Req X45)

RR3-647 Online SPID Migration – Database Updates

NPAC SMS shall perform SPID database updates for any SPID Migration that provides online operations tunable minutes (defined by Online SPID Migration Lead Time tunable) before the start of the weekly service provider maintenance window (defined by Maintenance Window Day Of The Week + Maintenance Window Start Time Hour tunables) (previously NANC 408, Req X46)

3.2.2.4 SPID Migration Reports (NANC 418)

RR3-648 SPID Migration Reports – Post-Migration SV and NPB Count Report

NPAC SMS shall support a migration-specific SPID Migration Report that lists each designated LRN for the SPID Migration, and the associated quantity of SVs and NPBs, for each LRN, that were updated by the NPAC SMS during the SPID Migration (previously NANC 418, Req 1)

3.3 System Functionality

R3-8 Off-line batch updates for Local SMS Disaster Recovery

NPAC SMS shall support an off-line batch download (via 4mm DAT tape and Secure FTP file download) to mass update Local SMSs with Subscription Versions, NPA-NXX-X Information, Number Pool Block and Service Provider Network data (reference NANC 399)

The contents of the batch download are:

- Subscriber data:
 - Version ID
 - TN
 - LRN
 - New Current Service Provider ID
 - Activation Request Timestamp
 - Version Status
 - CLASS DPC
 - CLASS SSN
 - LIDB DPC
 - LIDB SSN
 - ISVM DPC
 - ISVM SSN
 - CNAM DPC
 - CNAM SSN
 - WSMSC DPC (for Local SMSs that support WSMSC data)
 - WSMSC SSN (for Local SMSs that support WSMSC data)
 - End User Location - Value
 - End User Location - Type
 - Billing ID
 - LNP Type
 - Download Reason
 - SV Type (for Local SMSs that support SV Type data)
 - Alternative SPID (for Local SMSs that support Alternative SPID data)
 - Last Alternative SPID (for Local SMSs that support Last Alternative SPID data)
 - Alt-End User Location Value (for Local SMSs that support Alt-End User Location Value)
 - Alt-End User Location Type (for Local SMSs that support Alt-End User Location Type)
 - Alt-Billing ID (for Local SMSs that support Alt-Billing ID)
 - Voice URI (for Local SMSs that support Voice URI data)
 - MMS URI (for Local SMSs that support MMS URI data)
 - SMS URI (for Local SMSs that support SMS URI data)
- Customer data:
 - NPAC Customer ID
 - NPAC Customer name
- NPA-NXX-Download Data:
 - NPA-NXX ID
 - NPA-NXX Value
 - NPAC Customer ID
 - Effective TimeStamp
 - Download Reason
- NPA-NXX-X Data
 - Service Provider ID
 - NPA-NXX-X ID
 - NPA-NXX-X Value

- Creation Timestamp
 - Effective Timestamp
 - Download Reason
- Block Data
 - Block ID
 - NPA-NXX-X
 - LRN
 - New Current Service Provider ID
 - Activation Timestamp
 - CLASS DPC
 - CLASS SSN
 - LIDB DPC
 - LIDB SSN
 - ISVM DPC
 - ISVM SSN
 - CNAM DPC
 - CNAM SSN
 - WSMSC DPC (for Local SMSs that support WSMSC data)
 - WSMSC SSN (for Local SMSs that support WSMSC data)
 - Download Reason
 - Number Pool Block SV Type (for Local SMSs that support SV Type data)
 - Alternative SPID (for Local SMSs that support Alternative SPID data)
 - Last Alternative SPID (for Local SMSs that support Last Alternative SPID data)
 - Alt-End User Location Value (for Local SMSs that support Alt-End User Location Value)
 - Alt-End User Location Type (for Local SMSs that support Alt-End User Location Type)
 - Alt-Billing ID (for Local SMSs that support Alt-Billing ID)
 - Voice URI (for Local SMSs that support Voice URI data)
 - MMS URI (for Local SMSs that support MMS URI data)
 - SMS URI (for Local SMSs that support SMS URI data)
- LRN-Download Data:
 - LRN ID
 - LRN Value
 - Download Reason

R3-9 NPAC SMS download of network data to the Local SMS and SOA

NPAC SMS shall be able to communicate creation or deletion of Customer data, NPA-NXX data and LRN data for a Service Provider to Local SMSs and SOAs

The content (by type) of the network download is:

- Customer Data:
 - NPAC Customer ID
 - NPAC Customer Name (creation only)
 - SP Type (if supported), (creation only)
- NPA-NXX-Download Data:
 - NPA-NXX ID
 - NPA-NXX Value (creation only)
 - Effective TimeStamp (creation only)
 - Download Reason
- LRN-Download Data:
 - LRN ID
 - LRN Value (creation only)
 - Download Reason

RR3-66 Number Pool NPA-NXX-X Holder Information – NPAC SMS download of network data to the SOA or Local SMS

NPAC SMS shall be able to communicate creation, modification, or deletion of NPA-NXX-X data for a Service Provider to SOAs or Local SMSs (Previously N-61)

The content of the network download is:

- NPA-NXX-X Download Data:
 - NPA-NXX-X ID
 - NPA-NXX-X (creation only)
 - NPA-NXX-X Effective Date (creation only)
 - Last Modified TimeStamp (creation only)
 - Download Reason

RR3-67.1 Number Pool NPA-NXX-X Holder Information – NPAC SMS download via SOA and/or Local SMS Interface of NPA-NXX-X allocation to the Service Providers

NPAC SMS shall inform all Service Providers about the allocation of the NPA-NXX-Xs for pooling to the Block Holder via the SOA-to-NPAC SMS interface and/or NPAC SMS-to-Local SMS interface. The NPA-NXX-X data fields sent via the SOA-to-NPAC SMS interface and/or NPAC SMS-to-Local SMS interface are: (Previously N-62.1)

- NPAC Customer ID
-
- NPA-NXX-X ID
- NPA-NXX-X
- NPA-NXX-X Effective Date
- Creation TimeStamp
- Last Modified TimeStamp
- Download Reason

R3-10 NPAC SMS notification of NPA-NXX availability to the Service Providers

NPAC SMS shall inform all Service Providers about the availability of the NPA-NXXs for porting via the NPAC SMS-to-Local SMS interface and SOA-to-NPAC SMS interface or the Web bulletin board. The NPA-NXX data fields sent via the NPAC SMS-to-Local SMS interface and SOA-to-NPAC SMS interface are:

- NPAC Customer ID
- NPA-NXX ID
- NPA -NXX Value
- Effective Date
- Download Reason

The NPA-NXX data fields sent to the WEB bulletin board are:

- NPAC Customer ID
- NPAC Customer Name
- NPA-NXX Value
- Effective Date

R3-11 NPAC SMS notification of LRNs and Service Provider data by Service Provider

NPAC SMS shall inform all Service Providers about a new Service Provider and the associated LRNs via the NPAC SMS-to-Local SMS interface and SOA-to-NPAC SMS interface. NPAC SMS shall post the new Service Providers and/or new LRNs on the Web bulletin board.

The Service Provider data fields sent to the WEB bulletin board are:

- NPAC Customer ID
- NPAC Customer Name
- NPAC Customer Type
- Contact Type
- Contact Name
- Contact Address 1
- Contact Address 2
- Contact City
- Contact State
- Contact Zip
- Contact Province
- Contact Country
- Contact Phone
- Contact Fax
- Contact Pager
- Contact Pager PIN
- Contact Email

The LRN data fields sent to the WEB bulletin board are:

- NPAC Customer ID
- NPAC Customer Name
- LRN Value

RR3-67.2 Number Pool NPA-NXX-X Holder Information – NPAC SMS download via Web Bulletin Board of NPA-NXX-X allocation to the Service Providers

NPAC SMS shall inform all Service Providers about the allocation of the NPA-NXX-Xs for pooling to the Block Holder via the Web bulletin board. The NPA-NXX-X data fields sent to the WEB bulletin board are: (Previously N-62.2)

- NPAC Customer ID
- NPAC Customer Name
- NPA-NXX-X
- NPA-NXX-X Effective Date

RR3-278 LATA ID Information Source

NPAC SMS shall obtain LATA ID information from an industry source (previously NANC 319 Req 1)

RR3-279 Association of LATA ID with NPA-NXXs

NPAC SMS shall associate a LATA ID with each NPA-NXX used by the NPAC SMS (previously NANC 319 Req 2)

RR3-280 Association of LATA ID with LRNs

NPAC SMS shall associate a LATA ID with each LRN used by the NPAC SMS (previously NANC 319 req 3)

RR3-439 Validation of LATA ID for NPA-NXX Creates

NPAC shall reject NPA-NXX Create requests if a valid LATA ID reference does not exist in the industry source data

RR3-440 Validation of LATA ID for LRN Creates

NPAC shall reject LRN Create requests if a valid LATA ID reference does not exist in the industry source data

RR3-649 NPAC SMS Record ID Inventory – Maximum Value Rollover

NPAC SMS shall roll over a record ID attribute from the positive range to the negative range in instances when the ID reaches the maximum positive value of (2**31)-1, and start with an ID that is equal to the minimum negative value of minus (2**31) (previously NANC 147 Req 1)

Note: Record ID attributes include Audit ID, Action ID, Subscription Version ID, LRN ID, NPA-NXX ID, NPA-NXX-X ID, and Number Pool Block ID

Note: NPAC operational considerations may roll over a record ID before it reaches the maximum positive value, minimum negative value, or maximum negative value

RR3-650 NPAC SMS Record ID Inventory – Mechanism

NPAC SMS shall provide an inventory mechanism for persistent ID attributes (Audit ID, Action ID, Subscription Version ID, LRN ID, NPA-NXX ID, NPA-NXX-X ID, Number Pool Block ID) in instances when the ID reaches the maximum positive value of (2**31)-1, and must roll over to the minimum negative value of minus (2**31) (previously NANC 147 Req 2)

Note: NPAC operational considerations may roll over a record ID before it reaches the maximum positive value, minimum negative value, or maximum negative value

RR3-651 NPAC SMS Record ID Inventory – Adding Available ID Values

NPAC SMS shall, after a roll over and thereafter, add ID values to the ID inventory for a specific persistent ID attribute (Audit ID, Action ID, Subscription Version ID, LRN ID, NPA-NXX ID, NPA-NXX-X ID, Number Pool Block ID) when that specific ID value **does not** exist in either the active database or history database, based on the frequency defined in the inventory mechanism in the housekeeping process (previously NANC 147 Req 3)

Note: Available record ID values can change between housekeeping executions of the inventory mechanism (i.e., an SV-ID that is not available to be added to the inventory one month may be available to be added the next month)

RR3-652 NPAC SMS Record ID Inventory – Skipping Un-Available ID Values

NPAC SMS shall, after a roll over and thereafter, skip ID values when adding to the ID inventory for a specific persistent ID attribute (Audit ID, Action ID, Subscription Version ID, LRN ID, NPA-NXX ID, NPA-NXX-X ID, Number Pool Block ID) when that specific ID value **does** exist in either the active database or history database, based on the frequency defined in the inventory mechanism in the housekeeping process (previously NANC 147 Req 4)

RR3-653 NPAC SMS Record ID Inventory – Issuing new ID Values

NPAC SMS shall issue an ID value from the ID inventory for a specific persistent ID attribute (Audit ID, Action ID, Subscription Version ID, LRN ID, NPA-NXX ID, NPA-NXX-X ID, Number Pool Block ID) when creating a record that requires a new ID value, and the ID attribute has been rolled over (previously NANC 147 Req 5)

RR3-654 NPAC SMS Record ID Inventory – Skipping ID Value of Zero

NPAC SMS shall, after a roll over and thereafter, skip ID value zero (0) when adding to the ID inventory for a specific persistent ID attribute (Audit ID, Action ID, Subscription Version ID, LRN ID, NPA-NXX ID, NPA-NXX-X ID, Number Pool Block ID), based on the frequency defined in the inventory mechanism in the housekeeping process (previously NANC 147 Req 6)

3.4 Additional Requirements

RX3-1.1.1 Service Provider NPA-NXX Data Addition

NPAC SMS shall allow Service Providers to add their NPA-NXX data via the NPAC SMS-to-Local SMS interface or the SOA-to-NPAC SMS interface (NPA-NXX management from the LSMS applies only to the CMIP interface, not the XML interface)

RX3-1.1.2 Service Provider NPA-NXX Data Effective Date Validation

NPAC SMS shall allow Service Providers to add their NPA-NXX data with an effective date that is set to a past, present, or future date (NPA-NXX management from the LSMS applies only to the CMIP interface, not the XML interface)

RX3-1.2 Service Provider LRN Data Addition

NPAC SMS shall allow Service Providers to add their LRN data via the NPAC SMS-to-Local SMS interface or the SOA-to-NPAC SMS interface (LRN management from the LSMS applies only to the CMIP interface, not the XML interface)

RX3-3.1 Service Provider NPA-NXX Data Deletion

NPAC SMS shall allow Service Providers to delete their NPA- NXX data via the NPAC SMS-to-Local SMS interface or the SOA-to-NPAC SMS interface provided the changes do not cause any updates to the Subscription Versions, Number Pooling NPA-NXX-X or Number Pooling Block Information (NPA-NXX management from the LSMS applies only to the CMIP interface, not the XML interface)

RX3-3.2 Service Provider LRN Data Deletion

NPAC SMS shall allow Service Providers to delete their LRN data via the NPAC SMS-to-Local SMS interface or the SOA-to-NPAC SMS interface provided the changes do not cause any updates to the Subscription Versions, or Number Pooling Block Information (LRN management from the LSMS applies only to the CMIP interface, not the XML interface)

RR3-1 Service Provider Download Indicator

NPAC SMS shall provide a mechanism for the Service Provider to indicate whether or not they want NPA-NXX data and LRN data downloaded to their Local SMS via the NPAC SMS-to-Local SMS Interface and/or SOA via the SOA-to-NPAC SMS interface

RR3-2 Service Provider Download Indicator

NPAC SMS shall download NPA-NXX data and LRN data via the NPAC SMS-to-Local SMS Interface and/or the SOA-to-NPAC SMS interface if the indicator is **ON**

R3-14 Bulk Database Extracts

NPAC SMS shall periodically perform NPAC SMS database extracts of active Subscription Versions on an NPA-NXX basis to an ASCII file

R3-15 Secure FTP Site for Database Extracts

NPAC SMS shall store database extract files at the NPAC SMS Secure FTP site for Local SMS file retrieval

R3-16 Database Extract File Creation

NPAC SMS shall allow NPAC personnel to specify database extract file creation on a weekly, monthly, or quarterly basis

R3-17 Scope of Database Extract File Creation

NPAC SMS shall allow NPAC personnel to specify an NPA-NXX for database extract file creation

RR3-3 NPAC SMS Input Restrictions

NPAC SMS shall prevent the entry of pipe characters (|) as part of text strings

RR3-4 Create LRN data for a Service Provider

NPAC SMS shall allow NPAC personnel to create a new LRN for a service provider

RR3-15 NPAC Clock Synchronization

NPAC SMS shall synchronize its system clock using NTP to a Stratum 1 host

RR3-474 NPA-NXX Availability – First Usage Effective Date Window – Tunable Parameter

NPAC SMS shall provide a First Usage Effective Date Window tunable parameter, which is defined as the minimum length of time between the current date (exclusive) and the effective date/due date (inclusive), when creating a NPA-NXX-X (excluding pseudo-LRN) or Subscription Version (excluding pseudo-LRN) for the first time within that NPA-NXX (previously NANC 394, Req 1)

RR3-475 NPA-NXX Availability – First Usage Effective Date Window – Tunable Parameter Default

NPAC SMS shall default the First Usage Effective Date Window tunable parameter to five (5) business days (previously NANC 394, Req 2)

Note: The value of five (5) business days is selected because of the first port notification, since this would affect SPs operationally if this value is set to less than five business days

RR3-476 NPA-NXX Availability – First Usage Effective Date Window – Tunable Parameter Modification

NPAC SMS shall allow NPAC SMS Personnel, via the NPAC Administrative Interface, to modify the NPA-NXX Availability First Usage Effective Date Window tunable parameter (previously NANC 394, Req 2.5)

RR3-477 NPA-NXX– Live TimeStamp

NPAC SMS shall calculate an NPA-NXX Live TimeStamp for every NPA-NXX, which is the sum of the First Port Notification Broadcast TimeStamp (or the current system TimeStamp in cases where the first port notification has NOT been sent), plus the First Usage Effective Date Window tunable parameter (previously NANC 394, Req 3)

Note: This is an internal TimeStamp, and therefore, not represented in the NPA-NXX Data Model

RR3-478 Region Supports First Usage Effective Date Indicator

NPAC SMS shall provide a Region Supports First Usage Effective Date Indicator, which is defined as an indicator on whether or not First Usage Effective Date Window functionality will be supported by the NPAC SMS for a particular NPAC Region (previously NANC 394, Req 8)

RR3-479 Region Supports First Usage Effective Date Modification

NPAC SMS shall provide a mechanism for NPAC Personnel to modify the Region Supports First Usage Effective Date Indicator (previously NANC 394, Req 9)

RR3-480 Region Supports First Usage Effective Date Indicator – Default Value

NPAC SMS shall default the Region Supports First Usage Effective Date Indicator to TRUE (previously NANC 394, Req 10)

3.4.1 Valid NPA-NXXs in a Region Data Validations

RR3-441 Valid NPAs for each NPAC Region

NPAC SMS shall establish a list of valid NPAs for each NPAC region using information obtained from an industry source (previously NANC 321, Req1)

RR3-442 Maintaining List of Valid NPAs for Each NPAC Region

NPAC SMS shall maintain the list of valid NPAs for each NPAC region (previously NANC 321, Req 2)

RR3-443 Updating List of Valid NPAs for Each NPAC Region

NPAC SMS shall update the list of valid NPAs for each NPAC region using information obtained from an industry source (previously NANC 321, Req 3)

RR3-444 Rejection of NPA-NXXs that Do Not Belong to a Valid NPA for the NPAC Region

NPAC SMS shall reject a Service Provider request to open an NPA-NXX for portability if the associated NPA is not valid for the region (previously NANC 321, Req 4)

Note: The 859 (Lexington, KY and surrounding area) exception needs to be correctly processed

RR3-445 Regional NPAC NPA Edit Flag Indicator

NPAC SMS shall provide a Regional NPA Edit Flag Indicator, which is defined as an indicator on whether or not NPA edits will be enforced by the NPAC SMS for a particular NPAC Region (previously NANC 321, Req 5)

RR3-446 Regional NPAC NPA Edit Flag Indicator Modification

NPAC SMS shall provide a mechanism for NPAC Personnel to modify the Regional NPA Edit Flag Indicator (previously NANC 321 Req 6)

RR3-447 Regional NPAC NPA Edit Flag Indicator – Default Value

NPAC SMS shall default the Regional NPA Edit Flag Indicator to TRUE (previously NANC 321, Req 7)

RR3-448 Valid NPA-NXXs for 859 KY Exception

NPAC SMS shall establish a list of valid NPA-NXXs for the KY 859 NPA using information obtained from an industry source (previously NANC 321, Req 8)

RR3-449 Maintaining List of Valid NPA-NXXs for 859 KY Exception

NPAC SMS shall maintain the list of valid NPA-NXXs for the KY 859 NPA (previously NANC 321, Req 9)

RR3-450 Updating List of Valid NPAs for 859 KY Exception

NPAC SMS shall update the list of valid NPA-NXXs for the KY 859 NPA using information obtained from an industry source (previously NANC 321, Req 10)

RR3-451 Rejection of NPA-NXXs that Do Not Belong to a Valid NPA for the 859 KY Exception

NPAC SMS shall reject a Service Provider request to open an NPA-NXX for portability if the associated 859-xxx NPA-NXX is not valid for the region as defined below: (previously NANC 321, Req 11)

- 859-xxx with LATA 922 may only be opened in the Midwest NPAC Region
- 859-xxx with LATA OTHER THAN 922 may only be opened in the Southeast NPAC Region

3.4.2 NPA-NXX Modification

RR3-655 Regional NPA-NXX Modification Flag Indicator – Tunable Parameter

NPAC SMS shall provide a Regional NPA-NXX Modification Flag Indicator tunable parameter, which is defined as an indicator on whether or not NPA-NXX Modification capability will be supported by the NPAC SMS for a particular NPAC region (previously NANC 355, Req 18)

RR3-656 Regional NPA-NXX Modification Flag Indicator – Tunable Parameter Default

NPAC SMS shall default the NPA-NXX Modification Flag Indicator tunable parameter to TRUE (previously NANC 355, Req 19)

RR3-657 Regional NPA-NXX Modification Flag Indicator – Tunable Parameter Modification

NPAC SMS shall allow NPAC SMS Personnel, via the NPAC Administrative Interface, to modify the NPA-NXX Modification Flag Indicator tunable parameter (previously NANC 355, Req 20)

RR3-658 Modify NPA-NXX data for a Service Provider

NPAC SMS shall allow NPAC personnel to modify an existing NPA-NXX for a Service Provider via the NPAC Administrative Interface (previously NANC 355, Req 1)

RR3-659 NPAC SMS download of network data to the Local SMS and SOA – Modification

NPAC SMS shall be able to communicate modification of NPA-NXX data for a Service Provider to Local SMSs and SOAs (previously NANC 355, Req 2)

RR3-660 Service Provider NPA-NXX Data Modification

NPAC SMS shall reject a Service Provider request to modify their NPA-NXX data via the NPAC SMS-to-Local SMS interface, the SOA-to-NPAC SMS interface, or the SOA Low-tech Interface (previously NANC 355, Req 3)

RR3-661 Modification of NPA-NXX – Effective Date Modification from OpGUI

NPAC SMS shall allow NPAC personnel to modify the effective date for an NPA-NXX as stored in the NPAC SMS via the NPAC Administrative Interface (previously NANC 355, Req 4)

RR3-662 Modification of NPA-NXX – Effective Date versus Current Date

NPAC SMS shall allow the NPAC personnel to modify the effective date for an NPA-NXX if the current date is less than the existing effective date for the NPA-NXX (previously NANC 355, Req 5)

RR3-663 Modification of NPA-NXX – New Effective Date versus No Pending SVs or Scheduled NPA-NXX-Xs/Number Pool Blocks

NPAC SMS shall allow the NPAC personnel to modify the effective date for an NPA-NXX that is not a new NPA-NXX in an NPA Split, if no pending-like Subscription Versions or Scheduled NPA-NXX-Xs/Number Pool Blocks exist within the NPA-NXX (previously NANC 355, Req 6)

NOTE: The modification restriction during an NPA Split is required in order to maintain data consistency between the NPA-NXX Effective Date and the NPA Split Permissive Dial Dates

RR3-664 Modification of NPA-NXX – Validation Error

NPAC SMS shall report an error to the NPAC Personnel and reject the modification of an NPA-NXX, if validation errors occur as defined in Requirements RR3-662 and RR3-363 (previously NANC 355, Req 7)

RR3-665 Service Provider SOA NPA-NXX Modification Flag Indicator

NPAC SMS shall provide a Service Provider SOA NPA-NXX Modification Flag Indicator tunable parameter which defines whether a SOA supports NPA-NXX Modification (previously NANC 355, Req 8)

NOTE: The tunable parameter is used for both modification transactions sent over the interface as well as modifications messages in the BDD File. If the tunable parameter is set to TRUE, then the download reason in the BDD File will be set to modified. Otherwise, it will be set to new. In the XML interface, modification must be supported by the Service Provider (interface and BDD File)

RR3-666 Service Provider SOA NPA-NXX Modification Flag Indicator Default

NPAC SMS shall default the Service Provider SOA NPA-NXX Modification Flag Indicator tunable parameter to FALSE (previously NANC 355, Req 9)

RR3-667 Service Provider SOA NPA-NXX Modification Flag Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider SOA NPA-NXX Modification Flag Indicator tunable parameter (previously NANC 355, Req 10)

RR3-668 Service Provider LSMS NPA-NXX Modification Flag Indicator

NPAC SMS shall provide a Service Provider LSMS NPA-NXX Modification Flag Indicator tunable parameter which defines whether an LSMS supports NPA-NXX Modification (previously NANC 355, Req 11)

NOTE: The tunable parameter is used for both modification transactions sent over the interface as well as modifications messages in the BDD File. If the tunable parameter is set to TRUE, then the download reason in the BDD File will be set to modified. Otherwise, it will be set to new. In the XML interface, modification must be supported by the Service Provider (interface and BDD File)

RR3-669 Service Provider LSMS NPA-NXX Modification Flag Indicator Default

NPAC SMS shall default the Service Provider LSMS NPA-NXX Modification Flag Indicator tunable parameter to FALSE (previously NANC 355, Req 12)

RR3-670 Service Provider LSMS NPA-NXX Modification Flag Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider LSMS NPA-NXX Modification Flag Indicator tunable parameter (previously NANC 355, Req 13)

RR3-671 Modification of NPA-NXX – Service Provider SOA NPA-NXX Modification Flag Indicator set to FALSE

NPAC SMS shall process an NPA-NXX modification request when a Service Provider SOA NPA-NXX Modification Flag Indicator tunable parameter is set to FALSE, by sending the following: (previously NANC 355, Req 14)

- NPA-NXX Delete
- NPA-NXX Create (with new Effective Date and same NPA-NXX-ID)
- NOTE: The tunable parameter is applicable only to the CMIP interface In the XML interface, modification must be supported by the Service Provider

RR3-672 Modification of NPA-NXX – Service Provider SOA NPA-NXX Modification Flag Indicator set to TRUE

NPAC SMS shall process an NPA-NXX modification request when a Service Provider SOA NPA-NXX Modification Flag Indicator tunable parameter is set to TRUE, by sending the following: (previously NANC 355, Req 15)

- NPA-NXX Modification (with new Effective Date)
- NOTE: The tunable parameter is applicable only to the CMIP interface In the XML interface, modification must be supported by the Service Provider

RR3-673 Modification of NPA-NXX – Service Provider LSMS NPA-NXX Modification Flag Indicator set to FALSE

NPAC SMS shall process an NPA-NXX modification request when a Service Provider LSMS NPA-NXX Modification Flag Indicator tunable parameter is set to FALSE, by sending the following: (previously NANC 355, Req 16)

- NPA-NXX Delete
- NPA-NXX Create (with new Effective Date and same NPA-NXX-ID)
- NOTE: The tunable parameter is applicable only to the CMIP interface In the XML interface, modification must be supported by the Service Provider

RR3-674 Modification of NPA-NXX – Service Provider LSMS NPA-NXX Modification Flag Indicator set to TRUE

NPAC SMS shall process an NPA-NXX modification request when a Service Provider LSMS NPA-NXX Modification Flag Indicator tunable parameter is set to TRUE, by sending the following: (previously NANC 355, Req 17)

- NPA-NXX Modification (with new Effective Date)
- NOTE: The tunable parameter is applicable only to the CMIP interface In the XML interface, modification must be supported by the Service Provider

RR3-675 Service Provider SOA NPA-NXX Modify BDD File Indicator

DELETED

RR3-676 **Service Provider SOA NPA-NXX Modify BDD File Indicator Default**
DELETED

RR3-677 **Service Provider SOA NPA-NXX Modify BDD File Indicator Modification**
DELETED

RR3-678 **Service Provider LSMS NPA-NXX Modify BDD File Indicator**
DELETED

RR3-679 **Service Provider LSMS NPA-NXX Modify BDD File Indicator Default**
DELETED

RR3-680 **Service Provider LSMS NPA-NXX Modify BDD File Indicator Modification**
DELETED

3.4.3 Valid NPA-NXXs for each Service Provider

RR3-681 Valid NPA-NXXs for each SPID

NPAC SMS shall establish a list of valid NPA-NXXs for each SPID using information obtained from an industry source (414, Req 1)

RR3-682 Maintaining List of Valid NPA-NXXs for each SPID

NPAC SMS shall maintain the list of valid NPA-NXXs for each SPID using information obtained from an industry source (previously NANC 414, Req 2)

RR3-683 Updating List of Valid NPA-NXXs for each SPID

NPAC SMS shall update the list of valid NPA-NXXs for each SPID using information obtained from an industry source (previously NANC 414, Req 3)

RR3-684 Valid OCNs for each SPID

NPAC SMS shall establish a list of valid OCNs for each SPID using information obtained from each SPID entity (previously NANC 414, Req 4)

RR3-685 Maintaining List of Valid OCNs for each SPID

NPAC SMS shall maintain the list of valid OCNs for each SPID using information obtained from each SPID entity (previously NANC 414, Req 5)

RR3-686 Updating List of Valid OCNs for each SPID

NPAC SMS shall update the list of valid OCNs for each SPID using information obtained from each SPID entity (previously NANC 414, Req 6)

RR3-687 Rejection of NPA-NXXs that Do Not Belong to the OCN/SPID

NPAC SMS shall reject a Service Provider request to open an NPA-NXX for portability if the associated OCN/SPID does not own that NPA-NXX (previously NANC 414, Req 7)

RR3-688 Regional NPAC NPA-NXX Ownership Edit Flag Indicator

NPAC SMS shall provide a Regional NPA-NXX Ownership Edit Flag Indicator, which defines whether or not NPA-NXX Ownership edits will be enforced by the NPAC SMS for a particular NPAC Region (previously NANC 414, Req 8)

RR3-689 Regional NPAC NPA-NXX Ownership Edit Flag Indicator Modification

NPAC SMS shall provide a mechanism for NPAC Personnel to modify the Regional NPA-NXX Ownership Edit Flag Indicator (previously NANC 414, Req 9)

RR3-690 Regional NPAC NPA-NXX Ownership Edit Flag Indicator – Default Value

NPAC SMS shall default the Regional NPA-NXX Ownership Edit Flag Indicator to TRUE (previously NANC 414, Req 10)

RR3-691 Rejection of NPA Split for an NPA-NXX that Does Not Belong to the OCN/SPID

NPAC SMS shall reject an NPA Split request if the OCN of the new NPA-NXX is not associated with the owner of the old NPA-NXX (previously NANC 414, Req 11)

3.4.4 Pseudo-LRN in a Region Data Validations

RR3-713 LRN Record – Pseudo-LRN value in the NPAC SMS

NPAC SMS shall use the LRN value of “000-000-0000” (all zeros) as the explicit indication from a requesting Service Provider that the request is for a pseudo-LRN Subscription Version or pseudo-LRN Number Pool Block record (previously NANC 442, Req 1)

RR3-714 LRN Record – Pseudo-LRN restriction in the NPAC SMS

NPAC SMS shall reject the creation of the pseudo-LRN value of “000-000-0000” (all zeros) for an LRN record by Service Provider SOA, Service Provider Local SMS, Service Provider Low-Tech Interface, and NPAC Personnel on behalf of a Service Provider (previously NANC 442, Req 2)

RR3-715 LRN Record – Pseudo-LRN query in the NPAC SMS

NPAC SMS shall process a query of the pseudo-LRN value of “000-000-0000” (all zeros) for an LRN record, and return a “no records found” response (previously NANC 442, Req 41)

RR3-716 Region Supports Pseudo-LRN Indicator

NPAC SMS shall provide a Region Supports Pseudo-LRN Indicator, which is defined as an indicator on whether or not Pseudo-LRN functionality will be supported by the NPAC SMS for a particular NPAC Region (previously NANC 442, Req62)

RR3-717 Region Supports Pseudo-LRN Modification

NPAC SMS shall provide a mechanism for NPAC Personnel to modify the Region Supports Pseudo-LRN Indicator (previously NANC 442, Req63)

RR3-718 Region Supports Pseudo-LRN Indicator – Default Value

NPAC SMS shall default the Region Supports Pseudo-LRN Indicator to FALSE (previously NANC 442, Req 64)

3.5 NPA Splits Requirements

The following section defines NPA Split functionality within the NPAC SMS. The primary means of processing NPA Split information within the NPAC SMS is through automated and regular processing of NPA Split Load Flat Files from industry source data. In the event of an ‘emergency’ there is a manual process by which authorized NPAC personnel may enter required NPA Split information in order to initiate appropriate processing. This manual process is reserved for only ‘back-up or emergency’ situations as deemed by industry and NPAC representatives.

RN3-1 NPA Split Permissive Dialing

NPAC SMS shall support a permissive dialing period, during which dialing of both NPAs is allowed during NPA splits.

RN3-2 NPA split

NPAC SMS shall accept both the old and new NPAs during the permissive dialing period, but will only respond and download with the new NPA-NXX, except for query requests that span NPAs.

RN3-3 NPA Split Permissive Dialing Cleanup

NPAC SMS shall perform an update to remove NPAC SMS mapping of the old NPA-NXX(s) to the new NPA-NXX(s) for Subscription Versions associated with an NPA split after the expiration date of the permissive dialing period.

RR3-281 NPA Split – Load File from Industry Source Data

NPAC SMS shall allow an NPA Split Load Flat File from an industry source, to be used to enter, modify, or remove NPA Split information into/from the NPAC SMS (previously NANC 192 Req 1).

Note: The information from an industry source is assumed to include all necessary updates, including, but not limited to monthly plus emergency updates (previously NANC 192 Req 1).

RR3-282 NPA Split – Load File from Industry Source Data During Housekeeping Process

NPAC SMS shall allow the NPA Split Load Flat File to be loaded into the NPA Split information in the NPAC SMS during the current housekeeping process (previously NANC 192 Req 2).

RR3-283 NPA Split – Load File from Industry Source Data Processing Results

NPAC SMS shall be capable of storing NPA Split Load Flat File processing data that can be used to generate the NPA Split Load Flat File Exception Report (previously NANC 192 Req 3).

RR3-284 NPA Split – Load File from Industry Source Data, Reject existing new NPA-NXX

NPAC SMS shall process the NPA Split Load Flat File and for each new NPA split that is not yet scheduled in the NPAC SMS, reject the request, log an entry to be used for the NPA Split exception report, and continue processing the NPA Split Load Flat File, when the new NPA-NXX already exists in the NPAC SMS and is not already part of an NPA Split (previously NANC 192 Req 3 1).

RR3-285 NPA Split – Load File from Industry Source Data, Generate new NPA-NXX

NPAC SMS shall process the NPA Split Load Flat File and for each new NPA split that is not yet scheduled in the NPAC SMS, automatically generate and broadcast the new NPA-NXX, using the PDP start date/time as the value to populate the effective date for the new NPA-NXX (previously NANC 192 Req 3 2).

RR3-286 NPA Split – Load File from Industry Source Data, Delete new NPA-NXX

NPAC SMS shall process the NPA Split Load Flat File and for each NPA split that is scheduled in the NPAC SMS and being removed as an NPA Split, automatically delete and broadcast the delete of the new NPA-NXX (previously NANC 192 Req 3 3)

RR3-287 NPA Split – NPA Split Load Flat File Exception Report with An Existing New NPA-NXX

NPAC SMS shall provide an NPA Split Load Flat File Exception Report that identifies NPA split processing errors:

- 1 – NPA splits that cannot be added to the NPAC SMS because the new NPA-NXX already exists in the NPAC SMS at the time the NPA Split Load Flat File from an industry source is processed by the NPAC SMS, and that NPA-NXX is NOT already scheduled for an NPA Split in the NPAC SMS
- 2 – NPA splits already scheduled in the NPAC SMS where the PDP start date is modified, and pending SVs exist in the new NPA-NXX (previously NANC 192 Req 4)

RR3-288 NPA Split – Load File from Industry Source Data, Verifying Old and New NPA-NXX

NPAC SMS shall process the NPA Split Load Flat File and for each NPA split that is already scheduled in the NPAC SMS, verify the old and new NPA-NXXs exist, and generate an error if at least one does not exist (previously NANC 192 Req 5)

RR3-289 NPA Split – Load File from Industry Source Data, Pushing Out PDP Start Date

NPAC SMS shall process the NPA Split Load Flat File and for each NPA split that is already scheduled in the NPAC SMS, check for an effective date change in the new NPA-NXX where the PDP start date is pushed out to a further date in the future, and if no pending subscription versions exist in the new NPA-NXX, update both the new NPA-NXX Effective Date and the PDP start date (previously NANC 192 Req 6)

Note: The update of the new NPA-NXX effective date will be accomplished via a delete and re-add of the new NPA-NXX Both of these will be broadcast to all accepting SOAs and LSMSs For SOAs/LSMSs that support the modification of an NPA-NXX Effective Date, the update will be accomplished via a modification instead of the delete and re-add

RR3-290 NPA Split – Load File from Industry Source Data, Pulling In PDP Start Date

NPAC SMS shall process the NPA Split Load Flat File and for each NPA split that is already scheduled in the NPAC SMS, check for an effective date change in the new NPA-NXX where the PDP start date is pulled in to a closer date, and if no pending subscription versions exist in the new NPA-NXX update both the new NPA-NXX Effective Date and PDP start date (previously NANC 192 Req 7)

Note: The update of the new NPA-NXX effective date will be accomplished via a delete and re-add of the new NPA-NXX Both of these will be broadcast to all accepting SOAs and LSMSs For SOAs/LSMSs that support the modification of an NPA-NXX Effective Date, the update will be accomplished via a modification instead of the delete and re-add

RR3-291 NPA Split – Load File from Industry Source Data, Error Modifying PDP Start Date with Existing Subscription Versions

NPAC SMS shall process the NPA Split Load Flat File and for each NPA split that is already scheduled in the NPAC SMS, check for an effective date change in the new NPA-NXX where the PDP start date is modified, and if pending subscription versions exist in the new NPA-NXX, perform no updates to the NPA Split or new NPA-NXX, and log an error (previously NANC 192 Req 8)

RR3-292 NPA Split – Load File from Industry Source Data, Complete Processing of File

NPAC SMS shall process the NPA Split Load Flat File for each NPA split in the file, and shall NOT process any subsequent NPA Split Load Flat Files until the current file has been processed to completion, except in conditions where a subsequent file corrects an error in a previous file (previously NANC 192 Req 9)

RR3-293 NPA Split – Load File from Industry Source Data, Re-Processing of File

NPAC SMS shall be capable of re-processing the NPA Split Load Flat File in cases where the file was not completely processed due to NPA split processing errors, except in conditions where a subsequent file corrects an error in a previous file (previously NANC 192 Req 10)

RR3-294 NPA Split – Load File from Industry Source Data, Error Modifying PDP Start Date for NPA Split Already in Progress

NPAC SMS shall process the NPA Split Load Flat File for each NPA split in the file, and shall reject a modify PDP start date request, if the beginning of PDP has already passed for that NPA Split (previously NANC 192 Req 11)

RR3-295 NPA Split – Load File from Industry Source Data, Adding an NXX to an Existing Split

NPAC SMS shall process the NPA Split Load Flat File and for an NPA split that is already scheduled or in permissive dialing in the NPAC SMS, and an additional NXX is being added to the split, the NPAC SMS shall accept the addition of the NXX to the existing split (previously NANC 192 Req 12)

Note: The NPAC SMS will handle the additional split data appropriately (whether adding the NXX to the existing split, or creating a new split for the NPA-NXX), and maintain split data relationships between the existing split (NPA with different NXXs) and this newly added NXX (NPA with this new NXX), such that any subsequent actions on this split data will treat the relationship between all of the existing NPA-NXXs, and this newly added NXX, as part of the same split

RR3-296 NPA Split – Load File from Industry Source Data Information on the Web

NPAC SMS shall inform all Service Providers about the processing of the NPA Split Load Flat File from industry source data via the Web bulletin board The data field sent to the WEB bulletin board is the unique identifier for the file that is processed (previously NANC 192 Req 13)

Note: The Web will contain the latest full monthly file, plus the most recent incremental file

AN3-4.1 NPA Split Information Source

The default information source for NPA Split processing shall be the NPA Split Load Flat File, which is processed automatically based on a housekeeping process

AN3-4.2 NPAC Personnel Manual NPA Split Request

NPAC SMS shall support a mechanism by which NPAC Personnel may manually enter the required information to initiate NPA Split processing

Note: Manual entry of NPA Split information by NPAC Personnel is available in 'emergency' situations as deemed by industry and NPAC representatives Manual entry of NPA Split information is not the default method for initiating NPA Split processing on the NPAC SMS

RN3-4.1 NPA Split – NPA-NXX existence prior to the NPA Split

NPAC SMS shall verify that only the old NPA-NXX(s) involved in an NPA Split exist when NPAC personnel manually enter the split information

NPAC Data Administration

Note: When NPAC Personnel have to manually enter an NPA Split the New NPA-NXX(s) will automatically be broadcast to all accepting SOAs and LSMs prior to the NPA Split

RN3-4.2 NPA Split – New NPA-NXX existence prior to the NPA Split - Error

NPAC SMS shall report an error to NPAC personnel and reject the manual NPA Split request upon determining that the new NPA-NXX(s) involved in an NPA Split already exist(s) at the time of entry

RR3-436 NPA Split – Old NPA-NXX non-existence prior to the NPA Split - Error

NPAC SMS shall report an error to NPAC personnel and reject the manual NPA Split request upon determining that the old NPA-NXX(s) involved in an NPA Split do(es) not already exist(s) at the time of entry

RN3-4.3 NPA Split – NPA-NXX Effective Date Validation

DELETED

RR3-437 NPA Split – New NPA-NXX Creation

NPAC SMS shall automatically generate and broadcast the New NPA-NXX using the permissive dial period start date as the value to populate the effective date for the new NPA-NXX upon successful creation of the respective NPA Split information

RN3-4.4 NPA Split – NPA-NXX Effective Date Validation – Error

DELETED

RN3-4.5 NPA Split – NPA-NXX involved in one NPA Split Validation

DELETED

RN3-4.6 NPA Split – NPA-NXX involved in one NPA Split Validation

NPAC SMS shall report an error to NPAC personnel and reject the manual NPA Split request upon determining that a new NPA-NXX involved in an NPA Split is currently involved in another NPA Split

RR3-297 NPA Split – NPA Split Load Flat File Exception Report with New NPA-NXX Already Involved in NPA Split

NPAC SMS shall provide an NPA Split Load Flat File Exception Report that identifies NPA splits that cannot be added to the NPAC SMS because the new NPA-NXX is currently involved in another NPA Split (previously NANC 192 Req 16)

RN3-4.7 NPA Split – No Active Subscription Versions in the new NPA-NXX

NPA SMS shall verify that only pending, old, conflict, canceled, or cancel pending Subscription Versions exist in the new NPA-NXX involved in an NPA Split upon entering split information

RN3-4.8 NPA Split – No Active Subscription Versions in the new NPA-NXX – Error

NPA SMS shall report an error and reject the NPA Split upon determining that there are Subscription Versions with a status other than pending, old, conflict, canceled, or cancel pending in the new NPA-NXX involved in an NPA Split

RN3-4.9 NPA Split - Prevention of NPA-NXX Deletion

NPAC SMS shall prevent an old or new NPA-NXX involved in an NPA split from being deleted from the network data during permissive dialing

RN3-4.11 NPA Split - No modification of LRN data

NPAC SMS shall leave the LRN information in Subscription Versions involved in the split unchanged during NPA split processing

Note: The LRN data if necessary will be changed via mass update

RN3-4.12 NPA Split – Exception Processing for Subscription Versions that exist in the New and Old NPA-NXX

NPAC SMS shall upon finding a subscription version that exists in the new NPA-NXX that currently exists in the old NPA-NXX during NPA split processing shall do the following and continue processing:

- log an error
- the Subscription Version in the new NPA-NXX will be moved to old if active or to canceled if it is in any pending state
- the Subscription Version in the old NPA-NXX will be modified to the new NPA-NXX

RN3-4.13 NPA Split - No Modification of Filter Data

NPAC SMS shall leave filters for NPA-NXX(s) involved in an NPA split unchanged

Note: Service Providers are responsible for setting filters appropriately

RN3-4.14 NPA Split – Audit Processing

NPAC SMS shall query the LSMS systems for the new NPA-NXX(s) when an audit is run during the NPA split permissive dialing period

Note: It is the responsibility of the LSMS to recognize and return the new NPA-NXX in the subscription versions returned

RN3-4.15 NPA Split – Entering of Split Data

The NPAC SMS shall require the following data for manual entry of NPA Split information into the NPAC:

- the Service Provider Id
- the old and new NPA
- the affected NXX(s)
- the start date of the permissive dialing period
- the end date of the permissive dialing period

RN3-4.16 NPA Split – Modification of End Date of Permissive Dialing Date

NPAC SMS shall allow the modification of the end of permissive dialing during permissive dialing provided the date is not less than the current date

RR3-438 NPA Split – Modification of Start Date of Permissive Dialing Date

NPAC SMS shall allow the modification of the permissive dial start date provided the modification is made prior to the scheduled permissive dial period start date and is modified to a date that is still prior to the permissive dial period end date

RN3-4.17 NPA Split – Removal of NPA-NXX during Permissive Dialing

NPAC SMS shall allow the removal of an NPA-NXX during permissive dialing from the NPA Split information as an NPA-NXX involved in the NPA Split

Note: Even the last NPA-NXX within an NPA Split may be removed

RN3-4.18 NPA Split – Removal of NPA-NXX during Permissive Dialing – Subscription Version Processing

NPAC SMS shall upon removal of an NPA-NXX during permissive dialing modify the TN of any subscription versions involved in a split existing in the new NPA-NXX to the old NPA-NXX This processing includes subscription versions that did not previously exist prior to the NPA Split

RN3-4.19 NPA Split – Addition of NPA-NXX before or during Permissive Dialing

DELETED

RN3-4.20 NPA Split – Removal of NPA Split Information prior to NPA Split

NPAC SMS shall allow the removal of pending NPA Split information prior to the start of the permissive dialing period

RN3-4.21 NPA Split – Removal of NPA Split Information after Permissive Dialing Period End Date

NPAC SMS shall log and remove NPA Split Information from the NPAC SMS at the end of the permissive dialing period

RN3-4.22 NPA Split – No Broadcast of Subscription Version Modification

NPAC SMS shall broadcast no information to the SOA(s) or LSMS(s) about the creation, modification, or deletion of Subscription Versions due to NPA Split processing on the NPAC SMS

Note: The LSMS and SOA systems are responsible for creating, deleting, or modifying subscription versions due to an NPA Split

RN3-4.23 NPA Split – Retention of Subscription Version Id

NPAC SMS shall retain the Subscription Version Id of the Subscription Versions involved in an NPA Split

RN3-4.24 NPA Split - Update of Subscription Versions at the Beginning of Permissive Dialing

NPAC SMS shall update all Subscription Versions with a status other than old or canceled with the new NPA at the beginning of the Permissive Dialing Period

RN3-4.25 NPA Split - Old NPA-NXX involved in one NPA Split Validation

NPAC SMS shall verify that the old NPA-NXX(s) involved in an NPA Split are not currently involved in another NPA Split when NPAC personnel manually enter the NPA split information or the NPA Split Load Flat File is processed

RN3-4.26 NPA Split - Old NPA-NXX involved in one NPA Split Validation - Error

NPAC SMS shall report an error to NPAC personnel and reject the manual NPA Split request upon determining that an old NPA-NXX involved in an NPA Split is currently involved in another NPA Split

RN3-298 NPA Split – NPA Split Load Flat File Exception Report with Old NPA-NXX Already Involved in NPA Split

NPAC SMS shall provide an NPA Split Load Flat File Exception Report that identifies NPA splits that cannot be added to the NPAC SMS because the old NPA-NXX is currently involved in another NPA Split (previously NANC 192 Req 17)

RN3-4.27 NPA Split - Validation of the Permissive Dialing Period

NPAC SMS shall verify that the end date of permissive dialing is greater than the start date except in cases where there is no permissive dialing period

RN3-4.28 NPA Split - Old NPA-NXX and New NPA-NXX Ownership Validation

NPAC SMS shall verify that the owner of the old NPA-NXX matches the owner of the new NPA-NXX for each NXX in a NPA split

RN3-4.29 NPA Split - Old NPA-NXX and New NPA-NXX Ownership Validation – Error

DELETED

RR3-299 NPA Split – NPA Split Load Flat File Exception Report with Mismatched SPIDs for Old and New NPA-NXX

NPAC SMS shall provide an NPA Split Load Flat File Exception Report that identifies NPA splits that cannot be added to the NPAC SMS because the owner of the old NPA-NXX does not match the owner of the new NPA-NXX (previously NANC 192 Req 18)

RN3-4.30 NPA Split - Creation of a Subscription Version during the Permissive Dialing Period

NPAC SMS shall change the old NPA-NXX to the new NPA-NXX when a Subscription Version is created with the old NPA-NXX during the permissive dialing period

RN3-4.31 NPA Split - Current and Pending NPA Split Report

NPAC SMS shall support a Current and Pending NPA Split Report for NPA Splits before or during their permissive dialing period that contains all split data as defined in RN3-4 15

RN3-4.32 NPA Split - NPA Split History Report

NPAC SMS shall support a NPA Split History Report for completed NPA Splits that contains all split data as defined in RN3-4 15

RN3-4.33 NPA Split -

DELETED

RN3-4.34 NPA Split -

DELETED

RN3-4.35 NPA Split -

DELETED

RN3-4.36 NPA Split - Creation of Old Subscription Version

DELETED

RN3-4.37 NPA Split - Old Subscription Version No Broadcast

DELETED

RR3-219 NPA Splits – Deletion of Old NPA-NXX at the end of permissive dialing

NPAC SMS shall automatically delete the old NPA-NXX from the Portable NPA-NXX Information in the NPAC, upon reaching the end of the permissive dialing period for the old NPA-NXX involved in an NPA Split

3.5.1 NPA-NXX-X, NPA Splits

RR3-31 NPA Splits and the Number Pool NPA-NXX-X Information – New NPA Split Automatic Create of New NPA-NXX-X

NPAC SMS shall automatically create a new NPA-NXX-X in the Number Pooling NPA-NXX-X Information, when a valid request is made to add an NPA Split, if the old NPA-NXX-X exists, but the new NPA-NXX-X does NOT exist in the Number Pooling NPA-NXX-X Information (Previously N-300)

RR3-32 NPA Splits and the Number Pool NPA-NXX-X Information – New NPA Split Error Message if New NPA-NXX-X Already Exists

NPAC SMS shall reject the request and generate an error message when a request is made to add an NPA Split, and the new NPA-NXX-X already exists in the Number Pooling NPA-NXX-X Information (Previously N-301)

RR3-300 NPA Split – NPA Split Load Flat File Exception Report with Already Existing New NPA-NXX-X

NPAC SMS shall provide an NPA Split Load Flat File Exception Report that identifies NPA splits that cannot be added to the NPAC SMS because the new NPA-NXX-X already exists in the Number Pooling NPA-NXX-X Information (previously NANC 192 Req 19)

RR3-33 NPA Splits and the Number Pool NPA-NXX-X Information – New NPA Split Field Values for Automatic Add of New NPA-NXX-X

NPAC SMS shall populate the fields for the automatically generated new NPA-NXX-X in the Number Pooling NPA-NXX-X Information, when a request is made to add an NPA Split or an old NPA-NXX-X is created during a split, as follows: (Previously N-302)

- NPA-NXX-X ID – value automatically generated by NPAC

- NPA-NXX-X Holder SPID – value set to old NPA-NXX-X
- NPA-NXX-X – value set to the new NPA-NXX, plus the seventh digit of the old NPA-NXX-X
- Effective Date – value set to the latest of, the same field in old NPA-NXX-X, or the start of PDP
- Creation Date – value set to current date/time
- Last Modified Date – value set to current date/time
- Download Reason – value set to “new1”

RR3-34 NPA Splits and the Number Pool NPA-NXX-X Information – New NPA Split, Skip Block and Subscription Version Create

NPAC SMS shall NOT schedule the Creation of a Block and Subscription Versions with LNP Type of POOL, for an NPA-NXX-X that is automatically generated by the NPAC SMS in the Number Pooling NPA-NXX-X Information, as a result of a request to add an NPA Split (Previously N-303)

Note: The Block and SVs will be created at PDP Start based on Block and SV split requirements

RR3-35 NPA Splits and the Number Pool NPA-NXX-X Information – NXX Removal from NPA Split prior to the end of PDP

NPAC SMS shall upon the removal of an NPA-NXX from an NPA Split *prior to the end* of permissive dialing, remove the new NPA-NXX-X from the NPA-NXX-X Information (Previously N-310)

RR3-36.1 NPA Splits and the Number Pool NPA-NXX-X Information – Addition of an NPA-NXX-X scheduled for an NPA Split

NPAC SMS shall, upon entry of an old NPA-NXX-X in the Number Pooling NPA-NXX-X Information, automatically add an entry for the new NPA-NXX-X for an NPA-NXX scheduled for an NPA Split (Previously N-320 1)

RR3-36.2 NPA Splits and the Number Pool NPA-NXX-X Information – New Addition of an NPA-NXX-X scheduled for an NPA Split With an Error Message

NPAC SMS shall reject the request and generate an error message to the NPAC Personnel when a request is made to add a new NPA-NXX-X in the Number Pooling NPA-NXX-X Information, and the NPA-NXX is scheduled for an NPA Split (Previously N-320 2)

RR3-36.3 NPA Splits and the Number Pool NPA-NXX-X Information – Addition of an NPA-NXX-X currently in Permissive Dialing in an NPA Split

NPAC SMS shall, upon entry of an NPA-NXX-X in the Number Pooling NPA-NXX-X Information, automatically add an entry for the new/old NPA-NXX-X for an NPA-NXX currently in Permissive Dialing in an NPA Split (Previously N-320 3)

Note: Therefore, if entering the new NPA-NXX-X, then the old NPA-NXX-X will be automatically added; and if entering the old NPA-NXX-X, then the new NPA-NXX-X will be automatically added

RR3-37.1 NPA Splits and the Number Pool NPA-NXX-X Information – Modification of an NPA-NXX-X scheduled for an NPA Split

NPAC SMS shall, upon modification of an old NPA-NXX-X in the Number Pooling NPA-NXX-X Information, automatically modify the corresponding entry for the new NPA-NXX-X for an NPA-NXX scheduled for an NPA Split, if the new Effective Date is Greater Than or Equal To the start of the Permissive Dialing Period. If the modified Effective Date value is Less Than the start of the Permissive Dialing Period, then the new NPA-NXX-X's Effective Date is Equal To the start of the Permissive Dialing Period (Previously N-321 1)

RR3-37.2 NPA Splits and the Number Pool NPA-NXX-X Information – New Modification of an NPA-NXX-X scheduled for an NPA Split With an Error Message

NPAC SMS shall reject the request and generate an error message to the NPAC Personnel when a request is made to modify a new NPA-NXX-X in the Number Pooling NPA-NXX-X Information, and the NPA-NXX is scheduled for an NPA Split (Previously N-321 2)

RR3-37.3 NPA Splits and the Number Pool NPA-NXX-X Information – Modification of an NPA-NXX-X involved in an NPA Split

NPAC SMS shall, upon modification of an NPA-NXX-X in the Number Pooling NPA-NXX-X Information, automatically modify the old/new NPA-NXX-X for an NPA-NXX currently in Permissive Dialing in an NPA Split

Note: Therefore, if modifying the new NPA-NXX-X, then the old NPA-NXX-X will be automatically modified; and if modifying the old NPA-NXX-X, then the new NPA-NXX-X will be automatically modified (Previously N-321 3)

RR3-38.1 NPA Splits and the Number Pool NPA-NXX-X Information – Deletion of an NPA-NXX-X involved in an NPA Split

NPAC SMS shall, upon de-pooling of an old NPA-NXX-X in the Number Pooling NPA-NXX-X Information, prior to the start of the Permissive Dialing Period, automatically de-pool the corresponding entry for the new NPA-NXX-X for an NPA-NXX scheduled for an NPA Split, at the time the requested NPA-NXX-X is de-pooled (Previously N-322 1)

RR3-38.2 NPA Splits and the Number Pool NPA-NXX-X Information – New Deletion of an NPA-NXX-X scheduled for an NPA Split With an Error Message

NPAC SMS shall reject the request and generate an error message to the NPAC Personnel when a request is made to de-pool a new NPA-NXX-X in the Number Pooling NPA-NXX-X Information, and the NPA-NXX is scheduled for an NPA Split (Previously N-322 2)

RR3-38.3 NPA Splits and the Number Pool NPA-NXX-X Information – Deletion of an NPA-NXX-X involved in an NPA Split

NPAC SMS shall, upon de-pool of an NPA-NXX-X in the Number Pooling NPA-NXX-X Information, automatically de-pool the old/new NPA-NXX-X for an NPA-NXX currently in Permissive Dialing in an NPA Split, at the time the requested NPA-NXX-X is de-pooled

Note: Therefore, if de-pooling the new NPA-NXX-X, then the old NPA-NXX-X will be automatically de-pooled; and if de-pooling the old NPA-NXX-X, then the new NPA-NXX-X will be automatically de-pooled (Previously N-322 3)

RR3-39 NPA Splits and the Number Pool NPA-NXX-X Information – Broadcast of Addition or Deletion of NPA-NXX-X Split Data

NPAC SMS shall broadcast NPA-NXX-X data defined in RR3-31, RR3-35, RR3-36 1, RR3-36 3, RR3-37 1, RR3-37 3, RR3-38 1, and RR3-38 3, that is added or deleted for an NPA Split; this broadcast shall occur as defined in requirements RR3-66, RR3-67 1, RR3-67 2, RR3-68, RR3-69, RR3-70, RR3-71, RR3-72 and RR3-73 (Previously N-325)

RR3-40 NPA Splits and the Number Pool NPA-NXX-X Information – Deletion of Old NPA-NXX-X at the end of permissive dialing

NPAC SMS shall automatically delete the old NPA-NXX-X from the Number Pooling NPA-NXX-X Information, upon reaching the end of the permissive dialing period for the old NPA-NXX of the NPA-NXX-X (Previously N-326)

3.5.2 Block Holder, NPA Splits

RR3-41 NPA Splits and the Number Pooling Block Holder Information – Recognition of Both Old NPA and New NPA

NPAC SMS shall upon the start of permissive dialing for an NPA Split, convert the old NPA-NXX to the new NPA-NXX in the Number Pooling Block Information (Previously B-490)

RR3-42 NPA Splits and the Number Pooling Block Holder Information – NXX Removal from Split

NPAC SMS shall upon the removal of an NPA-NXX from an NPA Split, after the start of permissive dialing, reinstate the original NPA for the NXX-X in the Block Holder Information (Previously B-500)

RR3-43 NPA Splits and the Number Pool Block Holder Information – Addition of a Block involved in an NPA Split

NPAC SMS shall convert the old NPA-NXX to the new NPA-NXX for a Block involved in an NPA Split upon creation in the Number Pooling Block Holder Information, if the old NPA-NXX is currently in permissive dialing (Previously B-510)

RR3-44 NPA Splits and the Number Pool Block Holder Information – Addition of a Block for an NPA-NXX involved in an NPA Split

NPAC SMS shall accept a Block *create* request from NPAC personnel, Service Provider via the SOA-to-NPAC SMS Interface or Service Provider via the NPAC SOA Low-tech Interface, with either the old NPA-NXX or the new NPA-NXX for an NPA-NXX that is currently in permissive dialing (Previously B-520)

RR3-45 NPA Splits and the Number Pool Block Holder Information – Broadcast of a Block Create for an NPA-NXX involved in an NPA Split

NPAC SMS shall broadcast a Block *create* to a Local SMS, via the NPAC SMS-to-Local SMS Interface, by sending a Block using the new NPA-NXX for an NPA-NXX that is currently in permissive dialing (Previously B-530)

RR3-46 NPA Splits and the Number Pool Block Holder Information – Modification of a Block for an NPA-NXX involved in an NPA Split

NPAC SMS shall accept a Block *modify active* request from NPAC personnel, Service Provider via the SOA-to-NPAC SMS Interface, or Service Provider via the NPAC SOA Low-tech Interface, with either the old NPA-NXX or the new NPA-NXX for an NPA-NXX that is currently in permissive dialing (Previously B-540)

RR3-47 NPA Splits and the Number Pool Block Holder Information – Broadcast of a Block Modify Active for an NPA-NXX involved in an NPA Split

NPAC SMS shall broadcast a Block *modify active* to a Local SMS, via the NPAC SMS-to-Local SMS Interface, by sending a Block using the new NPA-NXX for an NPA-NXX that is currently in permissive dialing (Previously B-550)

NPAC Data Administration

RR3-48 NPA Splits and the Number Pool Block Holder Information – De-pooling of the Block during PDP

NPAC SMS shall broadcast a Block *delete* request to a Local SMS, via the NPAC SMS-to-Local SMS Interface, by sending a Block using the new NPA-NXX for an NPA-NXX that is currently in permissive dialing (Previously B-551)

RR3-49 NPA Splits and the Number Pool Block Holder Information – Mass Update that includes one or more Blocks for an NPA-NXX involved in an NPA Split

NPAC SMS shall accept a *mass update* request from Service Provider Personnel, via the NPAC Low-Tech Interface, and NPAC Personnel, via the NPAC Administrative Interface, that spans one or more Blocks that are part of an NPA Split that is currently in permissive dialing only when the new NPA-NXX is used

RR3-50 NPA Splits and the Number Pool Block Holder Information – Broadcast of a Mass Update that includes one or more Blocks for an NPA-NXX involved in an NPA Split

NPAC SMS shall broadcast a *mass update* that could span one or more Blocks to a Local SMS, via the NPAC SMS-to-Local SMS Interface, using the new NPA-NXX for an NPA-NXX that is currently in permissive dialing (Previously B-553)

RR3-51.1 NPA Splits and the Number Pool Block Holder Information – Creation of Old Block

DELETED

RR3-51.2 NPA Splits and the Number Pool Block Holder Information – Old Block No Broadcast

DELETED

RR3-218 NPA Splits and the Number Pool Block Holder Information – Broadcast of Subscription Versions for an NPA-NXX involved in an NPA Split

DELETED

3.6 NPA-NXX Filter Management Requirements

This section (filters in the NPAC) still applies for a local system that uses the XML interface, but the management of filters (e.g., SOA Creates a Filtered NPA-NXX) does not apply to the local system that uses the XML interface

3.6.1 NPA-NXX Level Filters

RR3-769 NPA-NXX Level Filters – Local System Management – CMIP Interface Only

NPAC SMS shall support NPA-NXX Level Filter Management (Create, Delete, Query) from the SOA and the Local SMS in the CMIP Interface (Previously NANC 372, Req 1)

RR3-5 Create Filtered NPA-NXX for a Local SMS and SOA

NPAC SMS shall allow a Service Provider to create a filtered NPA-NXX for a given Local SMS, via the NPAC SMS-to-Local SMS interface and the SOA-to-NPAC SMS interface, which results in the SMS **NOT** broadcasting NPA-NXX information, subscription versions, NPA-NXX-X information or Number Pool Blocks with the filtered NPA-NXX to the Local SMS

RR3-6 Delete Filtered NPA-NXX for a Local SMS and SOA

NPAC SMS shall allow a Service Provider to delete a filtered NPA-NXX for a given Local SMS, via the NPAC SMS-to-Local SMS interface and the SOA-to-NPAC SMS interface, which results in the SMS broadcasting NPA-NXX information, subscription versions, NPA-NXX-X information and Number Pool Blocks with the filtered NPA-NXX to the given Local SMS

RR3-7 Query Filtered NPA-NXXs for a Local SMS and SOA

NPAC SMS shall allow a Service Provider to query filtered NPA-NXXs for a given Local SMS via the NPAC SMS-to-Local SMS interface and the SOA-to-NPAC SMS interface

NOTE: The NPAC SMS maintains NPA-level filters internally. Therefore, they are NOT returned as a result of a query request

RR3-8 Query Filtered NPA-NXXs - NPA-NXX Not Provided

NPAC SMS shall return to the requesting Service Provider all filtered NPA-NXXs for a given Local SMS and SOA when the NPA-NXX is **NOT** input upon a Filter NPA-NXX Query via the NPAC SMS-to-Local SMS interface and the SOA-to-NPAC SMS interface

RR3-9 Query Filtered NPA-NXXs - NPA-NXX Provided

NPAC SMS shall return to the requesting Service Provider a single NPA-NXX for a given Local SMS and SOA when the NPA-NXX is input upon a filtered NPA-NXX Query via the NPAC SMS-to-Local SMS interface and the SOA-to-NPAC SMS interface

RR3-768 Delete Filtered NPA-NXX – Deletion of NPA-NXX

NPAC SMS shall delete an NPA-NXX filter when the corresponding NPA-NXX network data is deleted (previously NANC 396, Req 11)

3.6.2 NPA Level Filters

RR3-692 Create Filtered NPA for a Local SMS and SOA – Existing NPA-NXX not Required

NPAC SMS shall allow NPAC Personnel on behalf of a requesting Service Provider to create a filtered NPA for a given Local SMS and SOA, via the NPAC Administrative interface (previously NANC 396, Req 1)

RR3-692.5 Create Filtered NPA for a Local SMS and SOA – Delete Subordinate NPA-NXXs

NPAC SMS shall delete all subordinate NPA-NXX filters when a filtered NPA is created for a given Local SMS and SOA (previously NANC 396, Req 2)

RR3-693 Filtered NPA Behaviour for a Local SMS and SOA

NPAC SMS shall treat a filtered NPA the same as a filtered NPA-NXX for broadcasts and BDD files for a given Local SMS and SOA (previously NANC 396, Req 3)

Note: A filtered NPA is equivalent to a filtered NPA-NXX for every NXX under that NPA

RR3-694 Delete Filtered NPA for a Local SMS and SOA

NPAC SMS shall allow NPAC Personnel on behalf of a requesting Service Provider to delete a filtered NPA for a given Local SMS and SOA, via the NPAC Administrative interface (previously NANC 396, Req 4)

RR3-695 Filtered NPA Behaviour – Overlap Allowed

NPAC SMS shall allow the creation of an NPA-NXX Filter (6-digits) even if the corresponding NPA Filter (3-digits) already exists (previously NANC 396, Req 9)

Note: Allowing overlap allows the Service Provider to maintain filtering functionality when moving from a 3-digit basis to a 6-digit basis

RR3-696 Create Filtered NPA-NXX for a Local SMS and SOA – NPAC Personnel – Existing NPA-NXX Not Required

NPAC SMS shall allow NPAC Personnel to create a filtered NPA-NXX for a given Local SMS and SOA, even if the corresponding NPA-NXX network data does **NOT** exist in the NPAC SMS (previously NANC 396, Req 10)

Note: This is needed to allow NPAC Personnel to manage filtering functionality for a Service Provider

3.7 Business Hour and Days Requirements

RR3-10 Business Hours and Days

NPAC SMS shall support definition and processing of long, medium and short business hours and days for operations involving business time calculation

RR3-11 Business Day Definition – Short

DELETED

RR3-30 Business Day Definition – Long

DELETED

RR3-229 Short Business Days Tunable Parameter

NPAC SMS shall provide a Short Business Days tunable parameter that defines the days of the week that are valid for operations involving business time calculation excluding NPAC operations-defined holidays (Formerly NANC 328 Req 5)

RR3-230 Short Business Days Tunable Parameter – Default Value

NPAC SMS shall default the Short Business Days tunable parameter to Monday through Friday (Formerly NANC 328 Req 6)

RR3-231 Short Business Days Tunable Parameter – Valid Values

NPAC SMS shall use days of the week as valid values for the Short Business Days tunable parameter (Formerly NANC 328 Req 7)

RR3-232 Short Business Days Tunable Parameter - Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface to modify the Short Business Days Tunable Parameter (Formerly NANC 328 Req 8)

RR3-498 Medium Business Days Tunable Parameter

NPAC SMS shall provide a Medium Business Days tunable parameter that defines the days of the week that are valid for operations involving business time calculation excluding NPAC operations-defined holidays

RR3-499 Medium Business Days Tunable Parameter – Default Value

NPAC SMS shall default the Medium Business Days tunable parameter to Monday through Friday

RR3-500 Medium Business Days Tunable Parameter – Valid Values

NPAC SMS shall use days of the week as valid values for the Medium Business Days tunable parameter

RR3-501 Medium Business Days Tunable Parameter - Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface to modify the Medium Business Days Tunable Parameter

RR3-233 Long Business Days Tunable Parameter

NPAC SMS shall provide a Long Business Days tunable parameter that defines the days of the week that are valid for operations involving business time calculation excluding NPAC operations-defined holidays (Formerly NANC 328 Req 1)

RR3-234 Long Business Days Tunable Parameter – Default Value

NPAC SMS shall default the Long Business Days tunable parameter to Sunday through Saturday (Formerly NANC 328 Req 2)

RR3-235 Long Business Days Tunable Parameter – Valid Values

NPAC SMS shall use days of the week as valid values for the Long Business Days tunable parameter (Formerly NANC 328 Req 3)

RR3-236 Long Business Days Tunable Parameter - Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Long Business Days Tunable Parameter (Formerly NANC 328 Req 4)

RR3-12.1 Business Day Duration - Tunable Parameter

NPAC SMS shall provide long, medium and short Business Day Duration tunable parameters, which are defined as the number of hours from the tunable business day start time

RR3-12.2 Business Day Duration - Tunable Parameter Modification

NPAC SMS shall allow the NPAC SMS Administrator to modify the long, medium and short Business Day Duration tunable parameters

RR3-12.3 Short Business Day Duration - Tunable Parameter Default

NPAC SMS shall default the short Business Day Duration tunable parameter to 12 hours

RR3-502 Medium Business Day Duration - Tunable Parameter Default

NPAC SMS shall default the medium Business Day Duration tunable parameter to 17 hours

RR3-12.4 Long Business Day Duration - Tunable Parameter Default

NPAC SMS shall default the long Business Day Duration tunable parameter to 12 hours

RR3-13.1 Business Day Start Time - Tunable Parameter

NPAC SMS shall provide long, medium and short Business Day Start Time tunable parameters, which are defined as the start of the business day in local time of the predominant time zone within the region (stored in UTC)

RR3-13.2 Business Day Start Time - Tunable Parameter Modification

NPAC SMS shall set the long, medium and short Business Day Start Time tunable parameters to the value specified by the contracting region

RR3-13.3 Short Business Day Start Time - Tunable Parameter Default

NPAC SMS shall default the short Business Day Start Time tunable parameter to 13:00/12:00 UTC (adjusted for Standard/Daylight time changes)

RR3-503 Medium Business Day Start Time - Tunable Parameter Default

NPAC SMS shall default the medium Business Day Start Time tunable parameter to 7:00 AM local time of the predominant time zone within the region, stored in UTC and adjusted for Standard/Daylight time changes

RR3-13.4 Long Business Day Start Time - Tunable Parameter Default

NPAC SMS shall default the long Business Day Start Time tunable parameter to 9:00 AM local time of the predominant time zone within the region, stored in UTC and adjusted for Standard/Daylight time changes

RR3-14 Business Holidays

NPAC SMS shall allow NPAC operations personnel to add/delete business holidays

3.8 Notifications

3.8.1 TN Range Notification Indicator

RR3-237 NPAC Customer TN Range Notification Indicator

NPAC SMS shall provide a mechanism to indicate whether a Service Provider supports receiving TN Range Notifications via the SOA-to-NPAC SMS Interface (Formerly NANC 179 Req 1)

RR3-238 NPAC Customer TN Range Notification Indicator – Default

NPAC SMS shall default the TN Range Notification Indicator to **FALSE** (Formerly NANC 179 Req 2)

RR3-239 NPAC Customer TN Range Notification Indicator – Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the TN Range Notification Indicator on the NPAC Customer record (Formerly NANC 179 Req 3)

3.8.2 Customer No New SP Concurrence Notification Indicator

RR3-240 NPAC Customer No New SP Concurrence Notification Indicator

NPAC SMS shall provide a mechanism to indicate whether a Service Provider supports the Final Create Window Expiration Notification for a Subscription Version upon the expiration of the New Service Provider Final Create Window (Formerly NANC 240 Req 3)

RR3-241 NPAC Customer No New SP Concurrence Notification Indicator – Default

NPAC SMS shall default the No New SP Concurrence Notification Indicator to **FALSE** (Formerly NANC 240 Req 4)

RR3-242 NPAC Customer No New SP Concurrence Notification Indicator – Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the No New SP Concurrence Notification Indicator on the NPAC Customer record (Formerly NANC 240 Req 5)

RR3-243 Subscription Version Information – Suppress Notification when Service Provider No New SP Concurrence Notification Indicator is False

NPAC SMS shall suppress the Final Create Window Expiration Notification, if the Service Provider's No New SP Concurrence Notification Indicator is **FALSE** (Formerly NANC 240 Req 6)

RR3-244 Subscription Version Information – Send Notification when Service Provider No New SP Concurrence Notification Indicator is True

NPAC SMS shall send the Final Create Window Expiration Notification, if the Service Provider's No New SP Concurrence Notification Indicator is **TRUE** (Formerly NANC 240 Req 7)

3.8.3 SOA Notification Priority

RR3-245 SOA Notification Priority Tunable Parameter

NPAC SMS shall provide a SOA Notification Priority tunable parameter for each SOA notification that defines the priority of the SOA notification for the given region (Formerly NANC 329 Req 1)

RR3-246 SOA Notification Priority Based on Attributes

NPAC SMS shall allow SOA Notifications to have separate priorities associated with the value of certain attributes based on the information contained in Appendix C, Table C-7 – SOA Notification Priority Tunables (Formerly NANC 329 Req 2)

Note: The table referenced above is new and is appended to this document

RR3-247 SOA Notification Priority Tunable Parameter based on Old or New Service Provider Status

NPAC SMS shall allow different SOA Notification Priority values for Status Attribute Value Change notifications based on whether the Service Provider is acting as the Old Service Provider or as New Service Provider for the port as indicated in Appendix C, Table C-7 – SOA Notification Priority Tunables (Formerly NANC 329 Req 6)

RR3-248 SOA Notification Priority Tunable Parameter – Valid Values

NPAC SMS shall use **HIGH**, **MEDIUM**, **LOW**, and **NONE** as valid values for the SOA Notification Priority tunable parameters (Formerly NANC 329 Req 3)

RR3-249 SOA Notification Priority Tunable Parameter – Default Value

NPAC SMS shall default the SOA Notification Priority tunable parameter values to **MEDIUM** (Formerly NANC 329 Req 4)

RR3-250 Modifying the SOA Notification Priority Tunable Parameter Value

NPAC SMS shall allow NPAC Personnel to modify the SOA Notification Priority tunable parameter values based on Service Provider requests (Formerly NANC 329 Req 5)

RR3-251 SOA Notification Priority Processing

NPAC SMS shall send **HIGH** priority messages prior to sending **MEDIUM** priority messages and **MEDIUM** priority messages prior to **LOW** priority messages (Formerly NANC 329 Req 3 5)

RR3-252 SOA Notification Priority Tunable Parameter –Value Equal to NONE

NPAC SMS shall use the SOA Notification Priority tunable parameter equal to **NONE** to indicate that the notification is **not** generated for that Service Provider (Formerly NANC 329 Req 7)

RR3-253 Processing of SOA Notification Queues

NPAC SMS shall send SOA notifications to a Service Provider based on the SOA notification priority and ‘first in, first out’ within the priority (Formerly NANC 329 Req 8)

3.8.4 TN and Number Pool Block in Notifications

This section defines tunable parameters and system functionality for including certain attributes in notifications. This functionality does not apply to the local system that uses the XML interface (i.e., the TN and Number Pool Block will always be included in the notification over the XML interface).

RR3-770 TN and Number Pool Block in Notifications – CMIP Interface Only

NPAC SMS shall support TN and Number Pool Block in Notifications tunable parameters in the CMIP Interface (Previously NANC 372, Req 2)

RR3-452 Subscription Version Status Attribute Value Change – Send TN

NPAC SMS shall, based on the Subscription Version TN Attribute Flag Indicator, send the Subscription Version TN when sending a Subscription Version Status Attribute Value Change notification (previously NANC 151, Req 1)

RR3-453 Subscription Version Attribute Value Change – Send TN

NPAC SMS shall, based on the Subscription Version TN Attribute Flag Indicator, send the Subscription Version TN when sending a Subscription Version Attribute Value Change notification (previously NANC 151, Req 2)

RR3-454 Number Pool Block Status Attribute Value Change – Send NPA-NXX-X

NPAC SMS shall, based on the Number Pool Block NPA-NXX-X Attribute Flag Indicator, send the Number Pool Block NPA-NXX-X when sending a Number Pool Block Status Attribute Value Change notification (previously NANC 151, Req 3)

RR3-455 Number Pool Block Attribute Value Change – Send NPA-NXX-X

NPAC SMS shall, based on the Number Pool Block NPA-NXX-X Attribute Flag Indicator, send the Number Pool Block NPA-NXX-X when sending a Number Pool Block Attribute Value Change notification (previously NANC 151, Req 4)

RR3-456 Subscription Version TN Attribute Flag Indicator

NPAC SMS shall provide a Subscription Version TN Attribute Flag Indicator, which is defined as an indicator on whether or not the Service Provider supports receipt of the Subscription Version TN attribute in a Subscription Version Status Attribute Value Change or Attribute Value Change notification (previously NANC 151, Req 5)

RR3-457 Modification of Subscription Version TN Attribute Flag Indicator

NPAC SMS shall allow the NPAC Personnel, via the NPAC Administrative Interface, to modify the Subscription Version TN Attribute Flag Indicator (previously NANC 151, Req 6)

RR3-458 Subscription Version TN Attribute Flag Indicator Default Value

NPAC SMS shall default the Subscription Version TN Attribute Flag Indicator to FALSE (previously NANC 151, Req 7)

RR3-459 Number Pool Block NPA-NXX-X Attribute Flag Indicator

NPAC SMS shall provide a Number Pool Block NPA-NXX-X Attribute Flag Indicator, which is defined as an indicator on whether or not the Service Provider supports receipt of the Number Pool Block NPA-NXX-X attribute in a Number Pool Block Status Attribute Value Change or Attribute Value Change notification (previously NANC 151, Req 8)

RR3-460 Modification of Number Pool Block NPA-NXX-X Attribute Flag Indicator

NPAC SMS shall allow the NPAC Personnel, via the NPAC Administrative Interface, to modify the Number Pool Block NPA-NXX-X Attribute Flag Indicator (previously NANC 151, Req 9)

RR3-461 Number Pool Block NPA-NXX-X Attribute Flag Indicator Default Value

NPAC SMS shall default the Number Pool Block NPA-NXX-X Attribute flag Indicator to FALSE (previously NANC 151, Req 10)

3.8.5 Notifications Suppression – Types of Requests

This section defines notification suppression functionality. This functionality applies to the XML interface, the NPAC Administrative GUI Interface, and the Service Provider Low-Tech Interface.

RR3-781 Notification Suppression – Types of Requests

NPAC SMS shall allow the NPAC Administrative interface, NPAC Service Provider Low-Tech Interface, and the XML interface to suppress notifications for the following requests: (Previously NANC 458, Req 1)

- SV Create
- SV Activate
- SV Cancel
- SV Cancel Concurrence
- SV Disconnect (includes notifications for active SV that is disconnected, does not include Donor Disconnect Notification)
- SV Modify
- SV Conflict Resolution
- Pooled Block Create
- Pooled Block Modify
- Pooled Block Disconnect (NPAC Administrative Interface only)

RR3-782 Notification Suppression – Types of Options

The following notification suppression options shall be available when an NPAC user specifies notification suppression in a request: (Previously NANC 458, Req 2)

- suppress to self (Initiator SPID)
- suppress to parent Grantor (if Initiator SPID is a Delegate)
- suppress to Delegates(s) (if Initiator SPID is a Grantor or one of several Delegates related to a parent Grantor)
- suppress to the Other SPID
- suppress to the Other SPID's Delegate(s)

RR3-783 Notification Suppression –Suppression Options as Non-Delegate

NPAC SMS shall provide a Service Provider with the option to suppress notifications to self, related Delegate(s), the Other SPID, and the Other SPID's Delegate(s) on a per request basis (Previously NANC 458, Req 3)

RR3-784 Notification Suppression –Suppression Options as Delegate

NPAC SMS shall provide a Service Provider with the option to suppress notifications to self, parent Grantor, other related Delegate(s), the Other SPID, and the Other SPID's Delegate(s) on a per request basis (Previously NANC 458, Req 4)

RR3-785 Notification Suppression – Service Provider Authorization List

NPAC SMS shall provide a Service Provider Notification Suppression Authorization List which defines the list of other Service Providers that can suppress notifications to this Service Provider on a per request basis (Previously NANC 458, Req 5)

Note: The Authorization List maintains a 1:1 relationship between an Initiator SPID and a Suppressed SPID, whether each of those SPIDs is a Regular SPID, Grantor SPID, or Delegate SPID

RR3-786 Notification Suppression – Add SPID to Notification Suppression Authorization List by NPAC Personnel on behalf of a Service Provider

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to add a SPID to the Notification Suppression Authorization List, which results in the SPID not receiving notifications based on the suppression indicators in a request from an Initiator SPID, in subscription versions and Number Pool Blocks (Previously NANC 458, Req 6)

Note: A Service Provider (whether regular SPID, Grantor SPID, or Delegate SPID) is responsible for establishing their own list of Authorized Service Providers, while working with NPAC Personnel

RR3-787 Notification Suppression – Delete SPID from Notification Suppression Authorization List by NPAC Personnel on behalf of a Service Provider

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, on behalf of a Service Provider, to delete a SPID from the Notification Suppression Authorization List for a given Service Provider (Previously NANC 458, Req 7)

RR3-788 Notification Suppression – Query SPID from Notification Suppression Authorization List by NPAC Personnel on behalf of a Service Provider

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to query the Notification Suppression Authorization List for a given Service Provider (Previously NANC 458, Req 8)

RR3-789 Notification Suppression – Persisting Notification Suppression

NPAC SMS shall, in cases where a subscription version or Number Pool Block action results in LSMS messages or activity, persist notification suppression until the corresponding subscription version or Number Pool Block has an empty failed SP List (Previously NANC 458, Req 9)

Note: A Failed SP List can be cleared by a resend, resend exclusion, or audit

RR3-790 Notification Suppression – Service Provider Authorization List – NPAC Personnel Behavior

NPAC SMS shall maintain the same behavior for NPAC Personnel to suppress notifications on a per request basis as Service Providers (Previously NANC 458, Req 10)

RR3-791 Notification Suppression – Service Provider Authorization List – No Entry – XML Interface Behavior

NPAC SMS shall accept and process an XML message from an Initiator SPID that includes notification suppression indicators for Grantor/Delegate/Other SPIDs, even if there is no entry in the Service Provider Authorization List for the Grantor/Delegate/Other SPIDs, and send notifications using normal processing (Previously NANC 458, Req 11)

RR3-792 Notification Suppression – Service Provider Authorization List – No Entry – Administrative Interface and Low-Tech Interface Behavior

NPAC SMS shall accept and process a request from the NPAC Administrative Interface or Service Provider Low-Tech Interface from an Initiator SPID that includes notification suppression indicators for Grantor/Delegate/Other SPIDs, even if there is no entry in the Service Provider Authorization List for the Grantor/Delegate/Other SPIDs, and send notifications using normal processing (Previously NANC 458, Req 12)

RR3-793 Notification Suppression – Service Provider Authorization List – No Entry – Administrative Interface and Low-Tech Interface Behavior – Exception and Rejection

NPAC SMS shall reject a request from the NPAC Administrative Interface or Service Provider Low-Tech Interface from an Initiator SPID that includes notification suppression indicators for Grantor/Delegate/Other SPIDs, when there is no entry in the Service Provider Authorization List for the Grantor/Delegate/Other SPIDs, and the request is for an SV/NPB Create/Release (Previously NANC 458, Req 13)

3.9 Service Provider Support Indicators

3.9.1 SV Type and Alternative SPID Indicators

The following section of requirements defines service provider tunable features that indicate if a service provider system supports optional data functionality defined as part of NANC 399

RR3-484 Service Provider SOA SV Type Edit Flag Indicator

NPAC SMS shall provide a Service Provider SOA SV Type Edit Flag Indicator tunable parameter which defines whether a SOA supports SV Type (previously NANC 399, Req 1)

RR3-485 Service Provider SOA SV Type Edit Flag Indicator Default

NPAC SMS shall default the Service Provider SOA SV Type Edit Flag Indicator tunable parameter to FALSE (previously NANC 399, Req 2)

RR3-486 Service Provider SOA SV Type Edit Flag Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider SOA SV Type Edit Flag Indicator tunable parameter (previously NANC 399, Req 3)

RR3-487 Service Provider LSMS SV Type Edit Flag Indicator

NPAC SMS shall provide a Service Provider LSMS SV Type Edit Flag Indicator tunable parameter which defines whether an LSMS supports SV Type (previously NANC 399, Req 4)

RR3-488 Service Provider LSMS SV Type Edit Flag Indicator Default

NPAC SMS shall default the Service Provider LSMS SV Type Edit Flag Indicator tunable parameter to FALSE (previously NANC 399, Req 5)

RR3-489 Service Provider LSMS SV Type Edit Flag Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider LSMS SV Type Edit Flag Indicator tunable parameter (previously NANC 399, Req 6)

RR3-490 Service Provider SOA Alternative SPID Edit Flag Indicator

NPAC SMS shall provide a Service Provider SOA Alternative SPID Edit Flag Indicator tunable parameter which defines whether a SOA supports Alternative SPID (previously NANC 399, Req 7)

RR3-491 Service Provider SOA Alternative SPID Edit Flag Indicator Default

NPAC SMS shall default the Service Provider SOA Alternative SPID Edit Flag Indicator tunable parameter to FALSE (previously NANC 399, Req 8)

RR3-492 Service Provider SOA Alternative SPID Edit Flag Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider SOA Alternative SPID Edit Flag Indicator tunable parameter (previously NANC 399, Req 9)

RR3-493 Service Provider LSMS Alternative SPID Edit Flag Indicator

NPAC SMS shall provide a Service Provider LSMS Alternative SPID Edit Flag Indicator tunable parameter which defines whether an LSMS supports Alternative SPID (previously NANC 399, Req 10)

RR3-494 Service Provider LSMS Alternative SPID Edit Flag Indicator Default

NPAC SMS shall default the Service Provider LSMS Alternative SPID Edit Flag Indicator tunable parameter to FALSE (previously NANC 399, Req 11)

RR3-495 Service Provider LSMS Alternative SPID Edit Flag Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider LSMS Alternative SPID Edit Flag Indicator tunable parameter (previously NANC 399, Req 12)

RR3-504 Service Provider SOA Last Alternative SPID Edit Flag Indicator

NPAC SMS shall provide a Service Provider SOA Last Alternative SPID Edit Flag Indicator tunable parameter which defines whether a SOA supports Last Alternative SPID (previously NANC 438, Req 1)

RR3-505 Service Provider SOA Last Alternative SPID Edit Flag Indicator Default

NPAC SMS shall default the Service Provider SOA Last Alternative SPID Edit Flag Indicator tunable parameter to FALSE (previously NANC 438, Req 2)

RR3-506 Service Provider SOA Last Alternative SPID Edit Flag Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider SOA Last Alternative SPID Edit Flag Indicator tunable parameter (previously NANC 438, Req 3)

RR3-507 Service Provider LSMS Last Alternative SPID Edit Flag Indicator

NPAC SMS shall provide a Service Provider LSMS Last Alternative SPID Edit Flag Indicator tunable parameter which defines whether an LSMS supports Alternative SPID (previously NANC 438, Req 4)

RR3-508 Service Provider LSMS Last Alternative SPID Edit Flag Indicator Default

NPAC SMS shall default the Service Provider LSMS Last Alternative SPID Edit Flag Indicator tunable parameter to FALSE (previously NANC 438, Req 5)

RR3-509 Service Provider LSMS Last Alternative SPID Edit Flag Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider LSMS Last Alternative SPID Edit Flag Indicator tunable parameter (previously NANC 438, Req 6)

3.9.2 Alternative-End User Location and Alternative Billing ID Indicators

The following section of requirements defines service provider tunable features that indicate if a service provider system supports optional data functionality defined as part of NANC 436

RR3-510 Service Provider SOA Alt-End User Location Value Edit Flag Indicator

NPAC SMS shall provide a Service Provider SOA Alt-End User Location Value Edit Flag Indicator tunable parameter which defines whether a SOA supports Alt-End User Location Value (previously NANC 436, Req 1)

RR3-511 Service Provider SOA Alt-End User Location Value Edit Flag Indicator Default

NPAC SMS shall default the Service Provider SOA Alt-End User Location Value Edit Flag Indicator tunable parameter to FALSE (previously NANC 436, Req 2)

RR3-512 Service Provider SOA Alt-End User Location Value Edit Flag Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider SOA Alt-End User Location Value Edit Flag Indicator tunable parameter (previously NANC 436, Req 3)

RR3-513 Service Provider SOA Alt-End User Location Type Edit Flag Indicator

NPAC SMS shall provide a Service Provider SOA Alt-End User Location Type Edit Flag Indicator tunable parameter which defines whether a SOA supports Alt-End User Location Type (previously NANC 436, Req 4)

RR3-514 Service Provider SOA Alt-End User Location Type Edit Flag Indicator Default

NPAC SMS shall default the Service Provider SOA Alt-End User Location Type Edit Flag Indicator tunable parameter to FALSE (previously NANC 436, Req 5)

RR3-515 Service Provider SOA Alt-End User Location Type Edit Flag Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider SOA Alt-End User Location Type Edit Flag Indicator tunable parameter (previously NANC 436, Req 6)

RR3-516 Service Provider SOA Alt-Billing ID Edit Flag Indicator

NPAC SMS shall provide a Service Provider SOA Alt-Billing ID Edit Flag Indicator tunable parameter which defines whether a SOA supports Alt-Billing ID (previously NANC 436, Req 7)

RR3-517 Service Provider SOA Alt-Billing ID Edit Flag Indicator Default

NPAC SMS shall default the Service Provider SOA Alt-Billing ID Edit Flag Indicator tunable parameter to FALSE (previously NANC 436, Req 8)

RR3-518 Service Provider SOA Alt-Billing ID Edit Flag Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider SOA Alt-Billing ID Edit Flag Indicator tunable parameter (previously NANC 436, Req 9)

3.9.3 URI Indicators

The following section of requirements defines service provider tunable features that indicate if a service provider system supports optional data functionality defined for URIs

RR3-519 Service Provider SOA Voice URI Edit Flag Indicator

NPAC SMS shall provide a Service Provider SOA Voice URI Edit Flag Indicator tunable parameter which defines whether a SOA supports Voice URI (previously NANC 429, Req 1)

RR3-520 Service Provider SOA Voice URI Edit Flag Indicator Default

NPAC SMS shall default the Service Provider SOA Voice URI Edit Flag Indicator tunable parameter to FALSE (previously NANC 429, Req 2)

RR3-521 Service Provider SOA Voice URI Edit Flag Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider SOA Voice URI Edit Flag Indicator tunable parameter (previously NANC 429, Req 3)

RR3-522 Service Provider LSMS Voice URI Edit Flag Indicator

NPAC SMS shall provide a Service Provider LSMS Voice URI Edit Flag Indicator tunable parameter which defines whether an LSMS supports Voice URI (previously NANC 429, Req 4)

RR3-523 Service Provider LSMS Voice URI Edit Flag Indicator Default

NPAC SMS shall default the Service Provider LSMS Voice URI Edit Flag Indicator tunable parameter to FALSE (previously NANC 429, Req 5)

RR3-524 Service Provider LSMS Voice URI Edit Flag Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider LSMS Voice URI Edit Flag Indicator tunable parameter (previously NANC 429, Req 6)

RR3-525 Service Provider SOA MMS URI Edit Flag Indicator

NPAC SMS shall provide a Service Provider SOA MMS URI Edit Flag Indicator tunable parameter which defines whether a SOA supports MMS URI (previously NANC 430, Req 1)

RR3-526 Service Provider SOA MMS URI Edit Flag Indicator Default

NPAC SMS shall default the Service Provider SOA MMS URI Edit Flag Indicator tunable parameter to FALSE (previously NANC 430, Req 2)

RR3-527 Service Provider SOA MMS URI Edit Flag Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider SOA MMS URI Edit Flag Indicator tunable parameter (previously NANC 430, Req 3)

RR3-528 Service Provider LSMS MMS URI Edit Flag Indicator

NPAC SMS shall provide a Service Provider LSMS MMS URI Edit Flag Indicator tunable parameter which defines whether an LSMS supports MMS URI (previously NANC 430, Req 4)

RR3-529 Service Provider LSMS MMS URI Edit Flag Indicator Default

NPAC SMS shall default the Service Provider LSMS MMS URI Edit Flag Indicator tunable parameter to FALSE (previously NANC 430, Req 5)

RR3-530 Service Provider LSMS MMS URI Edit Flag Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider LSMS MMS URI Edit Flag Indicator tunable parameter (previously NANC 430, Req 6)

RR3-531 Service Provider SOA SMS URI Edit Flag Indicator

NPAC SMS shall provide a Service Provider SOA SMS URI Edit Flag Indicator tunable parameter which defines whether a SOA supports SMS URI (previously NANC 435, Req 1)

RR3-532 Service Provider SOA SMS URI Edit Flag Indicator Default

NPAC SMS shall default the Service Provider SOA SMS URI Edit Flag Indicator tunable parameter to FALSE (previously NANC 435, Req 2)

RR3-533 Service Provider SOA SMS URI Edit Flag Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider SOA SMS URI Edit Flag Indicator tunable parameter (previously NANC 435, Req 3)

RR3-534 Service Provider LSMS SMS URI Edit Flag Indicator

NPAC SMS shall provide a Service Provider LSMS SMS URI Edit Flag Indicator tunable parameter which defines whether an LSMS supports SMS URI (previously NANC 435, Req 4)

RR3-535 Service Provider LSMS SMS URI Edit Flag Indicator Default

NPAC SMS shall default the Service Provider LSMS SMS URI Edit Flag Indicator tunable parameter to FALSE (previously NANC 435, Req 5)

RR3-536 Service Provider LSMS SMS URI Edit Flag Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider LSMS SMS URI Edit Flag Indicator tunable parameter (previously NANC 435, Req 6)

3.9.4 Medium Timers Support Indicators

The following section of requirements defines service provider tunable features that indicate if a service provider system supports simple port medium timer functionality defined as part of NANC 440 and 441

RR3-537 Medium Timers Support Indicator

NPAC SMS shall provide a Medium Timers Support Indicator tunable parameter which defines whether a SOA supports Medium Timers in an Object Creation Notification or Attribute Value Change Notification (previously NANC 440, Req 1)

Note: When this value is set to TRUE, and a SOA supports the Timer Type attribute, a Timer Type value of 2 may be sent in the Object Creation Notification, and the Timer Type attribute will be included in the Attribute Value Change Notification with a Timer Type value of 0 or 2 in cases when the value changed from the initial setting based on a Timer Type mismatch in the New SP and Old SP Create messages

RR3-538 Medium Timers Support Indicator Default

NPAC SMS shall default the Medium Timers Support Indicator tunable parameter to FALSE (previously NANC 440, Req 2)

RR3-539 Medium Timers Support Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Medium Timers Support Indicator tunable parameter (previously NANC 440, Req 3)

3.9.5 Pseudo-LRN Support Indicators

RR3-719 Service Provider SOA Pseudo-LRN Indicator

NPAC SMS shall provide a Service Provider SOA Pseudo-LRN Indicator tunable parameter which defines whether a SOA supports Pseudo-LRN (previously NANC 442, Req 16)

RR3-720 Service Provider SOA Pseudo-LRN Indicator Default

NPAC SMS shall default the Service Provider SOA Pseudo-LRN Indicator tunable parameter to FALSE (previously NANC 442, Req 17)

RR3-721 Service Provider SOA Pseudo-LRN Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider SOA Pseudo-LRN Indicator tunable parameter (previously NANC 442, Req 18)

RR3-722 Service Provider LSMS Pseudo-LRN Indicator

NPAC SMS shall provide a Service Provider LSMS Pseudo-LRN Indicator tunable parameter which defines whether an LSMS supports Pseudo-LRN (previously NANC 442, Req 19)

RR3-723 Service Provider LSMS Pseudo-LRN Indicator Default

NPAC SMS shall default the Service Provider LSMS Pseudo-LRN Indicator tunable parameter to FALSE (previously NANC 442, Req 20)

RR3-724 Service Provider LSMS Pseudo-LRN Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider LSMS Pseudo-LRN Indicator tunable parameter (previously NANC 442, Req 21)

RR3-725 Service Provider SOA Pseudo-LRN Notification Indicator

NPAC SMS shall provide a Service Provider SOA Pseudo-LRN Notification Indicator tunable parameter which defines whether a SOA supports Pseudo-LRN (previously NANC 442, Req 65)

RR3-726 Service Provider SOA Pseudo-LRN Notification Indicator Default

NPAC SMS shall default the Service Provider SOA Pseudo-LRN Notification Indicator tunable parameter to FALSE (previously NANC 442, Req 66)

RR3-727 Service Provider SOA Pseudo-LRN Notification Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider SOA Pseudo-LRN Notification Indicator tunable parameter (previously NANC 442, Req 67)

RR3-728 Service Provider Low-Tech Interface Pseudo-LRN Support Flag Indicator

NPAC SMS shall provide a Service Provider Low-Tech Interface Pseudo-LRN Support Flag Indicator tunable parameter which defines whether the SPID supports pseudo-LRN functionality on the Low-Tech Interface (previously NANC 442, Req 42)

RR3-729 Service Provider Low-Tech Interface Pseudo-LRN Support Flag Indicator Default

NPAC SMS shall default the Service Provider Low-Tech Interface Pseudo-LRN Support Flag Indicator tunable parameter to TRUE (previously NANC 442, Req 43)

RR3-730 Service Provider Low-Tech Interface Pseudo-LRN Support Flag Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider Low-Tech Interface Pseudo-LRN Support Flag Indicator tunable parameter (previously NANC 442, Req 44)

RR3-731 Service Provider SOA Force Pseudo-LRN BDD Indicator

NPAC SMS shall provide a Service Provider SOA Force Pseudo-LRN BDD Indicator tunable parameter which defines whether a SOA supports forcing Pseudo-LRN data into the BDD even when SOA Supports Pseudo-LRN Indicator is FALSE (previously NANC 442, Req 85)

RR3-732 Service Provider SOA Force Pseudo-LRN BDD Indicator Default

NPAC SMS shall default the Service Provider SOA Force Pseudo-LRN BDD Indicator tunable parameter to FALSE (previously NANC 442, Req 86)

RR3-733 Service Provider SOA Force Pseudo-LRN BDD Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider SOA Force Pseudo-LRN BDD Indicator tunable parameter (previously NANC 442, Req 87)

RR3-734 Service Provider LSMS Force Pseudo-LRN BDD Indicator

NPAC SMS shall provide a Service Provider LSMS Force Pseudo-LRN BDD Indicator tunable parameter which defines whether an LSMS supports forcing Pseudo-LRN data into the BDD even when LSMS Supports Pseudo-LRN Indicator is FALSE (previously NANC 442, Req 88)

RR3-735 Service Provider LSMS Force Pseudo-LRN BDD Indicator Default

NPAC SMS shall default the Service Provider LSMS Force Pseudo-LRN BDD Indicator tunable parameter to FALSE (previously NANC 442, Req 89)

RR3-736 Service Provider LSMS Force Pseudo-LRN BDD Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider LSMS Force Pseudo-LRN BDD Indicator tunable parameter (previously NANC 442, Req 90)

3.10 Multiple Service Provider Ids Per Primary SOA Requirements

This section defines service bureau functionality (servicing multiple associated SPIDs via a single primary SOA)
This functionality applies to both the CMIP Interface and the XML interface

RR3-16 Addition of NPAC Customer Associated Service Provider Information

NPAC SMS shall allow NPAC personnel to store a primary service provider id with the associated service provider id that it will service

RR3-17 Deletion of NPAC Customer Associated Service Provider Information

NPAC SMS shall allow NPAC personnel to delete an associated service provider id that is serviced by a primary service provider id

RR3-18 NPAC Customer Associated Service Provider Information – SPID validation

NPAC SMS shall validate that the primary and associated service provider ids specified in the NPAC Customer Associated Service Provider Information are valid service provider ids defined in the NPAC SMS

RR3-19 NPAC Customer Associated Service Provider Information – Associated SPID

NPAC SMS shall validate that the associated service provider id is not already specified as a primary or associated service provider id in the NPAC Customer Associated Service Provider Information

A3-5 Associated Service Provider Multiple Service Provider Ids

Associated service providers using services from another primary service provider's SOA must use another service provider id if they choose to interact with the NPAC independently from the primary service provider

RR3-20 NPAC Customer Associated Service Provider Information – Validation Error

NPAC SMS shall report an error to the user and reject the addition of NPAC Customer Associated Service Provider Information if validation errors occur

RR3-21 NPAC Deletion of Service Provider Validation

NPAC SMS shall prevent a service provider from being deleted in the NPAC SMS if it exists in the NPAC Customer Associated Service Provider Information as a primary or associated service provider id

RR3-22 Association/Connection Rejection for Associated Service Provider Id

NPAC SMS shall reject any SOA-to-NPAC SMS association/connection attempt by a Service Provider Id that is a service provider associated with the primary Service Provider Id in the NPAC Customer Associated Service Provider Information

RR3-23 Associated Service Provider Id Use over a Primary Service Provider Id Association/Connection

NPAC SMS shall support the specification of an associated service provider id in the access control field over aSOA-to-NPAC SMS association (CMIP only) or message detail over aSOA-to-NPAC SMS connection (XML only) for the primary service provider provided the associated service provider id is defined in the NPAC Associated Service Provider Information for the primary service provider id

RR3-24 Validation of Old and New/Current for Associated Service Provider Id

NPAC SMS shall validate the old and new/current service provider id for a message sent over the SOA-to-NPAC SMS association/connection for the primary association as is done today using the service provider id specified in the access control (CMIP only) or XML message detail (XML only) for the message

RR3-25 Use of Primary Service Provider Key List/SP Key

NPAC SMS shall accept and send keys from the key lists (CMIP only) or SP Key (XML only) associated with the primary service provider for all SOA-to-NPAC SMS messages sent over the association/connection for the primary service provider

RR3-26 Notifications for Associated Service Providers

NPAC SMS shall send all SOA notifications for an associated Service Provider over the SOA-to-NPAC SMS interface association/connection for the primary service provider

C3-1 Associated Service Provider Notification Aggregation

NPAC SMS aggregation of all messages over the SOA-to-NPAC SMS interface for primary and associated service provider ids will not be supported by the NPAC SMS

RR3-27 Filters for Associated Service Providers

NPAC SMS shall apply NPA-NXX filters to the messages for the associated Service Provider Id before sending the messages over the SOA-to-NPAC SMS interface association/connection for the primary service provider

RR3-28 Associated Service Provider and Primary Service Provider messages

NPAC SMS shall support messages containing primary and associated service provider ids that are interleaved over the SOA-to-NPAC SMS interface association/connection for the primary service provider

RR3-29 Recovery for an Associated Service Provider

NPAC SMS shall support the recovery (CMIP only) of network data or notifications for an associated Service Provider over aSOA-to-NPAC SMS association in recovery mode for a primary service provider

Note: Recovery (CMIP only) of information for associated service providers is the responsibility of the primary service provider. The primary service provider must establish an association in recovery mode, send the recovery actions for each service provider id, primary and associated, and then as the primary SPID indicate recovery is complete

3.11 Bulk Data Download Functionality

This section describes Bulk Data Download functionality supported by the NPAC SMS. The NPAC can generate files for Network Data (including SPID, LRN, NPA-NXX and NPA-NXX-X), and Subscription Versions (including Number Pool Blocks). The NPAC SMS also has the ability to process Bulk Data Download Response files from Service Providers.

During the implementation of NPAC SMS Release 3.4, Bulk Data Download File functionality was enhanced to define separate SOA and LSMS Indicators for a Service Provider (previous functionality was at the Service Provider level only).

3.11.1 Bulk Data Download Functionality - General

RR3-220 Bulk Data Download File Creation

NPAC SMS shall provide a mechanism that allows a Service Provider to recover network data, notification data and subscription data in file format.

RR3-221 Bulk Data Download – File Naming Convention

NPAC SMS shall follow the file naming convention as described in Appendix E.

RR3-222 Bulk Data Download – File Format

NPAC SMS shall follow the file format as described in Appendix E.

RR3-223 Bulk Data Download – Selection Criteria for File Creation

NPAC SMS shall allow network data only, subscription data only, notification data only, or all, as selection criteria for bulk data download file generation.

RR3-697 Bulk Data Download – Separate SOA and LSMS Indicators

NPAC SMS shall follow the SOA and LSMS Indicators as described in Appendix E (previously NANC 420-5, Req 1).

RR3-772 Bulk Data Download – Support for SOA/LSMS Last Activity Timestamp

NPAC SMS shall apply the SOA/LSMS Last Activity Timestamp tunable support of the requesting Service Provider, in the creation of Service Provider bulk data download files for SOA or LSMS (NANC 372).

3.11.2 Network Data, Bulk Data Download

RR3-224 Bulk Data Download – Required Selection Criteria for Network Data File Generation

NPAC SMS shall require, as selection criteria for network bulk data download file generation, a Service Provider filter of either a single Service Provider ID or ‘All Service Providers’.

RR3-301 Network Data Information Bulk Download File Creation – Selection Criteria

NPAC SMS shall include the Requesting Service Provider, *All Network Data* or *Latest View of Network Data Activity* Choice, and Time Range as Selection Criteria fields for the Network Data bulk data download files via the NPAC Administrative Interface (previously NANC 354 Req 2).

RR3-302 Network Data Information Bulk Download File Creation – All Network Data or Latest View of Network Data Activity Choice

NPAC SMS shall allow NPAC Personnel to select either *All Network Data* or *Latest View of Network Data Activity*, and shall use the selected choice, for Network Data (previously NANC 354 Req 3)

RR3-303 Network Data Information Bulk Download File Creation – Data in All Network Data Choice

NPAC SMS shall use the *All Network Data* selection to include all Network Data in the Network Data Bulk Data Download files (previously NANC 354 Req 4)

RR3-304 Network Data Information Bulk Download File Creation – Data in Latest View of Network Data Activity Choice

NPAC SMS shall use the *Latest View of Network Data Activity* selection to include all Network Data, in order to capture activation, modification (NPA-NXX, NPA-NXX-X), and deletion transactions for Network Data, but only include the latest instance of the Network Data in the Network Data Bulk Data Download files, when Network Data has more than one activity (e g , addition, then modification of an NPA-NXX-X) within the specified time range (previously NANC 354 Req 5)

Note: The format of the BDD file doesn't change based on the status of the Network Data but some of the fields may be blank Example: Creates and modifies would have all the attributes specified but disconnect and deletes would have many fields null

RR3-305 Network Data Information Bulk Download File Creation – Time Range Fields

NPAC SMS shall use the Start Time Range entry field as an inclusive start range, and the End Time Range entry field as an inclusive end range, for Network Data that were broadcast during the specified Time Range (previously NANC 354 Req 6)

Note: The NPAC Administrative Interface is settable for the GUI user's local time (e g , a USA in Sterling will have the local time set to Eastern Time) M&Ps will be established to determine the correct time range on the request of the BDD file

RR3-306 Network Data Information Bulk Download File Creation – Time Range Fields and Network Data Data Model

NPAC SMS shall use the Start and End Time Range entry fields to include Network Data, based on the appropriate Broadcast Time Stamp, in order to capture the start of broadcast activity for Activation/Modification/Disconnect, when generating the file for the *Latest View of Network Data Activity* selection (previously NANC 354 Req 7)

RR3-307 Network Data Information Bulk Download File Creation – Selection Criteria Combinations

NPAC SMS shall edit the selection criteria combination as shown in the table below:

| | Time Range | TN Range |
|--------------------------------------|------------|---------------|
| All Network Data | Rejected | Not Available |
| Latest View of Network Data Activity | Required | Not Available |

Such that a combination of:

- All with a Time Range shall be rejected
- Latest View shall require a Time Range
- TN Range shall not be available for either All or Latest View

(previously NANC 354 Req 8)

RR3-308 Network Data Information Bulk Data Download – Network Data Results

NPAC SMS shall provide a bulk data download file, based on the selection criteria, that contains all Network Data in the NPAC SMS (previously NANC 354 Req 9)

RR3-309 Network Data Information Bulk Data Download – Network Data Results Sort Order

NPAC SMS shall sort the Network Data Bulk Data Download files, in ascending order based on the value in the NPA-NXX/LRN/NPA-NXX-X attribute (previously NANC 354 Req 10)

RR3-310 Network Data Information Bulk Data Download – Filters for Network Data

NPAC SMS shall apply NPA-NXX Filters to Network Data in the creation of bulk data download files (previously NANC 354 Req 11)

RR3-311 Network Data Information Bulk Data Download – Secure FTP Sub-Directory

NPAC SMS shall automatically put the Network Data bulk data download files into the Secure FTP sub-directory of the Service Provider, based on SPID, which requested the creation of the Network Data bulk data download files (previously NANC 354 Req 12)

RR3-481 Service Provider Data Information Bulk Data Download – Support for Service Provider Type Data

NPAC SMS shall apply the Service Provider Type tunable support of the requesting Service Provider, in the creation of Service Provider bulk data download files (previously NANC 357, Req 8)

3.11.3 Subscription Version, Bulk Data Download

RR3-225 Bulk Data Download –Required Selection Criteria for Subscription Data File Generation

NPAC SMS shall require, as selection criteria for subscription bulk data download file generation, a Service Provider filter of either a single Service Provider ID or ‘All Service Providers’

RR3-226 Bulk Data Download – Optional Selection Criteria for Subscription Data File Generation

DELETED

RR3-312 Subscription Version Information Bulk Download File Creation – Selection Criteria

NPAC SMS shall include the Requesting Service Provider, *Active/Disconnect Pending/Partial Failure Subscription Versions Only* or *Latest View of Subscription Version Activity* Choice, Time Range and TN Range as Selection Criteria fields for the Subscription Version bulk data download file via the NPAC Administrative Interface (previously NANC 169 Req 2)

RR3-313 Subscription Version Information Bulk Download File Creation – Active/Disconnect Pending/Partial Failure Subscription Versions Only or Latest View of Subscription Version Activity Choice

NPAC SMS shall allow NPAC Personnel to select either *Active/Disconnect Pending/Partial Failure Subscription Versions Only* or *Latest View of Subscription Version Activity*, and shall use the selected choice, for Subscription Version data (previously NANC 169 Req 3)

RR3-314 Subscription Version Information Bulk Download File Creation – Data in Active/Disconnect Pending/Partial Failure Subscription Versions Only Choice

NPAC SMS shall use the *Active/Disconnect Pending/Partial Failure Subscription Versions Only* selection to only include Subscription Versions with a status of either Active, Disconnect Pending, Partial Failure, or Sending that is being downloaded for either an activate or modify but not a disconnect, in the Subscription Version Bulk Data Download file (previously NANC 169 Req 4)

RR3-315 Subscription Version Information Bulk Download File Creation – Data in Latest View of Subscription Version Activity Choice

NPAC SMS shall use the *Latest View of Subscription Version Activity* selection to include all Subscription Versions, regardless of status, in order to capture activation, modification, and deletion transactions for Subscription Version data, but only include the latest instance of the TN in the Subscription Version Bulk Data Download file, for a given NPA-NXX, when a Subscription Version has more than one activity (e g , addition, then modification) within the specified time range (previously NANC 169 Req 5)

Note: The format of the BDD file doesn't change based on the status of the SV but some of the fields may be blank
Example: Creates and modifies would have all the attributes specified but disconnect and deletes would have many fields null

RR3-316 Subscription Version Information Bulk Download File Creation – Time Range Fields

NPAC SMS shall use the Start Time Range entry field as an inclusive start range, and the End Time Range entry field as an inclusive end range, for Subscription Version data that were broadcast during the specified Time Range (previously NANC 169 Req 6)

Note: The NPAC Administrative Interface is settable for the GUI user's local time (e g , a USA in Sterling will have the local time set to Eastern Time)

RR3-317 Subscription Version Information Bulk Download File Creation – Time Range Fields and SV Data Model

NPAC SMS shall use the Start and End Time Range entry fields to include Subscription Version data, based on the appropriate Broadcast Time Stamp, in order to capture the start of broadcast activity for Activation/Modification/Disconnect, when generating the file for the *Latest View of Subscription Version Activity* selection (previously NANC 169 Req 7)

RR3-318 Subscription Version Information Bulk Download File Creation – TN Range Fields

NPAC SMS shall use the first TN Range entry field as an inclusive start range, and the second TN Range entry field as an inclusive end range, for Subscription Version data (previously NANC 169 Req 8)

RR3-319 Subscription Version Information Bulk Download File Creation – Selection Criteria Combinations

NPAC SMS shall edit the selection criteria combination as shown in the table below:

| | Time Range | TN Range |
|--|------------|----------|
| Active/Disconnect Pending/Partial Failure Sending with a Download Reason of New or Modify SVs Only | Rejected | Optional |
| Latest View of SV Activity | Required | Optional |

Such that a combination of:

- Active with a Time Range shall be rejected

- Latest View shall require a Time Range
- TN Range shall be optional for both Active and Latest View
(previously NANC 169 Req 9)

RR3-320 Subscription Version Information Bulk Data Download – Subscription Version Results

NPAC SMS shall provide a bulk data download file, based on the selection criteria, that contains all Subscription Versions in the NPAC SMS (previously NANC 169 Req 10)

RR3-321 Subscription Version Information Bulk Data Download – Subscription Version Results Sort Order

NPAC SMS shall sort the Subscription Version Bulk Data Download file, in ascending order based on the value in the TN attribute (previously NANC 169 Req 11)

RR3-322 Subscription Version Information Bulk Data Download – Filters for Subscription Versions

NPAC SMS shall apply NPA-NXX Filters to Subscription Versions in the creation of bulk data download files (previously NANC 169 Req 12)

RR3-323 Subscription Version Information Bulk Data Download –LSMSs

DELETED

RR3-227 Bulk Data Download – Secure FTP Sub-Directory

NPAC SMS shall automatically put the subscription bulk data download file into the Secure FTP sub-directory of the Service Provider, based on SPID, which requested the creation of the subscription bulk data download file

RR3-324 Bulk Download File Creation – Pooled Subscription Versions Filtered for Local SMS

NPAC SMS shall filter out Subscription Versions with LNP Type of POOL for Bulk Data Download files of Subscription Version data (Previously SV-521 and RR5-112)

RR3-737 Subscription Version Bulk Download File Creation for SOA – Pseudo-LRN Inclusion

NPAC SMS shall include Subscription Versions with a pseudo-LRN value for Bulk Data Download files of Subscription Version data, when the requesting Service Provider's NPAC Customer SOA Pseudo-LRN Indicator is set to TRUE, and the New Service Provider value in the pseudo-LRN record is contained in the requesting Service Provider's Pseudo-LRN Accepted SPID List; OR, when the requesting Service Provider's NPAC Customer SOA Force Pseudo-LRN BDD Indicator is set to TRUE (previously NANC 442 Req 3)

RR3-738 Subscription Version Bulk Download File Creation for LSMS – Pseudo-LRN Inclusion

NPAC SMS shall include Subscription Versions with a pseudo-LRN value for Bulk Data Download files of Subscription Version data, when the requesting Service Provider's NPAC Customer LSMS Pseudo-LRN Indicator is set to TRUE, and the New Service Provider value in the pseudo-LRN record is contained in the requesting Service Provider's Pseudo-LRN Accepted SPID List; OR, when the requesting Service Provider's NPAC Customer LSMS Force Pseudo-LRN BDD Indicator is set to TRUE (previously NANC 442 Req 45)

3.11.4 NPA-NXX-X Holder, Bulk Data Download

This section of requirements was previously 3.13.9 NPA-NXX-X Holder, Bulk Data Download and was moved to this new section for document consistency. The requirement numbers remain static to their original FRS numbering.

RR3-116 Number Pool NPA-NXX-X Holder Information Bulk Download File – Separate File containing all NPA-NXX-X Data

NPAC SMS shall provide a separate bulk data download file that contains all NPA-NXX-Xs in the NPAC SMS, when generating bulk data download files for Network Data. (Previously N-373)

RR3-117 Number Pool NPA-NXX-X Holder Information Bulk Download File – Filters for NPA-NXX-X Data

NPAC SMS shall apply NPA-NXX Filters to NPA-NXX-Xs in the creation of a bulk data download file. (Previously N-374)

RR3-118 Number Pool NPA-NXX-X Holder Information Bulk Download File – Secure FTP Sub-Directory

NPAC SMS shall automatically put the NPA-NXX-X bulk data download file into the Secure FTP sub-directory of the Service Provider, based on SPID, which requested the creation of the bulk data download file for Network Data. (Previously N-375) Subscription Version, Bulk Data Download

RR3-739 Number Pool NPA-NXX-X Holder Information Bulk Download File Creation for SOA – Pseudo-LRN Inclusion

NPAC SMS shall include NPA-NXX-Xs with a pseudo-LRN value for Bulk Data Download files of NPA-NXX-X data, when the requesting Service Provider's NPAC Customer SOA Pseudo-LRN Indicator is set to TRUE, and the New Service Provider value in the pseudo-LRN record is contained in the requesting Service Provider's Pseudo-LRN Accepted SPID List; OR, when the requesting Service Provider's NPAC Customer SOA Force Pseudo-LRN BDD Indicator is set to TRUE. (previously NANC 442 Req 68)

RR3-740 Number Pool NPA-NXX-X Holder Information Bulk Download File Creation for LSMS – Pseudo-LRN Inclusion

NPAC SMS shall include NPA-NXX-Xs with a pseudo-LRN value for Bulk Data Download files of NPA-NXX-X data, when the requesting Service Provider's NPAC Customer LSMS Pseudo-LRN Indicator is set to TRUE, and the New Service Provider value in the pseudo-LRN record is contained in the requesting Service Provider's Pseudo-LRN Accepted SPID List; OR, when the requesting Service Provider's NPAC Customer LSMS Force Pseudo-LRN BDD Indicator is set to TRUE. (previously NANC 442 Req 69)

3.11.5 Block Holder, Bulk Data Downloads

This section of requirements was previously 3.14.9 Block Holder, Bulk Data Download and was moved to this new section for document consistency. The requirement numbers remain static to their original FRS numbering.

RR3-198 Number Pool Block Holder Information Bulk Download File Creation – Blocks

NPAC SMS shall allow NPAC personnel to request a bulk data download file for Block data via the NPAC Administrative Interface. (Previously B-640)

NPAC Data Administration

RR3-199 Number Pool Block Holder Information Bulk Download File Creation – Selection Criteria

NPAC SMS shall include the Requesting Service Provider, Active and Partial Failure Blocks Only or Latest View of Block Activity Choice, Time Range, and Block Range as Selection Criteria fields for the Block bulk data download file via the NPAC Administrative Interface (Previously B-650)

RR3-200.1 Number Pool Block Holder Information Bulk Download File Creation – Active and Partial Failure Blocks Only or Latest View of Block Activity Choice

NPAC SMS shall allow NPAC Personnel to select either Active and Partial Failure Blocks Only or Latest View of Block Activity, and shall use the selected choice, for Block data (Previously B-652 1)

RR3-200.2 Number Pool Block Holder Information Bulk Download File Creation – Data in Active Blocks Only Choice

NPAC SMS shall use the Active and Partial Failure Blocks Only selection to only include Blocks with a status of either Active or Partial Failure in the Block Bulk Data Download file (Previously B-652 2)

RR3-200.3 Number Pool Block Holder Information Bulk Download File Creation – Data in Latest View of Block Activity Choice

NPAC SMS shall use the *Latest View of Block Activity* selection to include all Blocks, regardless of status, in order to capture activation, modification, and deletion transactions for Block data, but only include the latest instance of the Block in the Block Bulk Data Download file, for a given NPA-NXX-X, when a Block has more than one activity (e.g., addition, then modification) within the specified time range (Previously B-652 3)

RR3-201.1 Number Pool Block Holder Information Bulk Download File Creation – Time Range Fields

NPAC SMS shall use the Start Time Range entry field as an inclusive start range in GMT, and the End Time Range entry field as an inclusive ending range in GMT, for Block data that were broadcast during the specified Time Range (Previously B-654 1)

RR3-201.2 Number Pool Block Holder Information Bulk Download File Creation – Time Range Fields and Block Data Model

NPAC SMS shall use the Start and End Time Range entry fields to include Block data, based on the appropriate Timestamps, in the NPAC's Block Data Model, when generating the file for the *Latest View of Block Activity* selection (Previously B-654 2)

RR3-202 Number Pool Block Holder Information Bulk Download File Creation – Block Range Fields

NPAC SMS shall use the first Block Range entry field as an inclusive start range, and the second Block Range entry field as an inclusive ending range, for Block data (Previously B-655)

Note: If the Block Range was 303-242-2 through 303-355-6, the inclusive range would contain all Blocks within the TN Range of 303-242-2000 through 303-355-6999

RR3-203 Number Pool Block Holder Information Bulk Download File Creation – Selection Criteria Combinations

NPAC SMS shall edit the selection criteria combination as shown in the table below: (Previously B-657)

| | Time Range | Block Range |
|--|------------|-------------|
|--|------------|-------------|

NPAC Data Administration

| | | |
|--|----------|----------|
| Active and Partial Failure Blocks Only | Rejected | Optional |
| Latest View of Block Activity | Required | Optional |

Such that a combination of:

- Active with a Time Range shall be rejected
- Latest View shall require a Time Range
- Block Range shall be optional for both Active and Latest View

RR3-204 Number Pool Block Holder Information Bulk Data Download – Block Results

NPAC SMS shall provide a bulk data download file, based on the selection criteria, that contains all Blocks in the NPAC SMS (Previously B-660)

RR3-205 Number Pool Block Holder Information Bulk Data Download – Block Results Sort Order

NPAC SMS shall sort the Block Bulk Data Download file, in ascending order based on the value in the NPA-XXX-X attribute (Previously B-662)

RR3-206 Number Pool Block Holder Information Bulk Data Download – Filters for Blocks

NPAC SMS shall apply NPA-XXX Filters to Blocks in the creation of bulk data download files (Previously B-670)

RR3-207 Number Pool Block Holder Information Bulk Data Download – Secure FTP Sub-Directory

NPAC SMS shall automatically put the bulk data download file into the Secure FTP sub-directory of the Service Provider, based on SPID, which requested the creation of the bulk data download file (Previously B-680)

RR3-741 Number Pool Block Holder Information Bulk Download File Creation for SOA – Pseudo-LRN Inclusion

NPAC SMS shall include Number Pool Blocks with a pseudo-LRN value for Bulk Data Download files of Number Pool Block data, when the requesting Service Provider's NPAC Customer SOA Pseudo-LRN Indicator is set to TRUE, and the New Service Provider value in the pseudo-LRN record is contained in the requesting Service Provider's Pseudo-LRN Accepted SPID List; OR, when the requesting Service Provider's NPAC Customer SOA Force Pseudo-LRN BDD Indicator is set to TRUE (previously NANC 442 Req 4)

RR3-742 Number Pool Block Holder Information Bulk Download File Creation for LSMS – Pseudo-LRN Inclusion

NPAC SMS shall include Number Pool Blocks with a pseudo-LRN value for Bulk Data Download files of Number Pool Block data, when the requesting Service Provider's NPAC Customer LSMS Pseudo-LRN Indicator is set to TRUE, and the New Service Provider value in the pseudo-LRN record is contained in the requesting Service Provider's Pseudo-LRN Accepted SPID List; OR, when the requesting Service Provider's NPAC Customer LSMS Force Pseudo-LRN BDD Indicator is set to TRUE (previously NANC 442 Req 46)

3.11.6 Notifications, Bulk Data Download

RR3-462 Notification BDD Selection Criteria Fields

NPAC SMS shall include the requesting Service Provider and a time range, as selection criteria fields for the Notification bulk data download file, via the NPAC Administrative Interface (previously NANC 348, Req 2)

RR3-463 Notification BDD Required Selection Criteria

NPAC SMS shall require, as selection criteria for notification bulk data download file generation, a requesting Service Provider ID and a time range (previously NANC 348, Req 3)

RR3-464 Notification BDD File Name

NPAC SMS shall provide a bulk data download file for notification data, using a file name that indicates the Notification data and requested time range (previously, NANC 348, Req 4)

RR3-465 Notification BDD Time Range

NPAC SMS shall use the Start Time Range entry field as an exclusive start range, and the End Time Range entry field as an inclusive end range, for Notification data that were broadcast during the specified time range, based on notification attempt timestamp (previously NANC 348, Req 5)

RR3-466 Notification BDD Results

NPAC SMS shall provide a bulk data download file, based on selection criteria, that contains all Notification data in the NPAC SMS (previously NANC 348, Req 6)

RR3-467 Notification BDD Sort Order

NPAC SMS shall sort the Notification bulk data download file, in ascending order based on the value for date and time (previously NANC 348, Req 7)

RR3-468 Notification BDD Filters

NPAC SMS shall apply SP Profile Flags for ranges and notification type (based on the settings at the time the notification was created) (previously NANC 348, Req 8)

RR3-469 Notification BDD Secure FTP Sub-Directory

NPAC SMS shall automatically put the Notification bulk data download file into the Secure FTP sub-directory of the Service Provider, based on the SPID value of the requesting Service Provider (previously NANC 348, Req 9)

RR3-540 Notification BDD Service Provider Timer Type Business Hours Attributes Indicator

NPAC SMS shall provide a Notification BDD Service Provider Timer Type Business Hours Attributes Indicator tunable parameter which defines whether a Service Provider supports the Timer Type and Business Hours attributes in their BDD Files (previously NANC 416, Req 1)

RR3-541 Notification BDD Service Provider Timer Type Business Hours Attributes Indicator Default

NPAC SMS shall default the Notification BDD Service Provider Timer Type Business Hours Attributes Indicator tunable parameter to FALSE (previously NANC 416, Req 2)

RR3-542 Notification BDD Service Provider Timer Type Business Hours Attributes Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Notification BDD Service Provider Timer Type Business Hours Attributes Indicator tunable parameter (previously NANC 416, Req 3)

3.11.7 Bulk Data Download Response Files

The following section describes Bulk Data Download Response files. Bulk Data Download Response Files are used by the NPAC SMS to clean up Failed SP Lists for Subscription Version and Number Pool Block information.

RR3-325 File Name Format for Service Provider BDD Response File

NPAC SMS shall require the file name format of the Service Provider BDD Response File to be the original BDD File Name with a dash and the SPID appended at the end (previously NANC 322 Req 7).

Example: Subscription Versions BDD File for SPID 4768

BDD File Name NPANXX-NPANXX DD-MM-YYYYHHMMSS DD-MM-
 YYYYHHMMSS DD-MM-YYYYHHMMSS
 Service Provider BDD Response File Name NPANXX-NPANXX DD-MM-YYYYHHMMSS DD-MM-
 YYYYHHMMSS DD-MM-YYYYHHMMSS -4768

RR3-326 File Contents for Service Provider BDD Response File

NPAC SMS shall require the file contents of the Service Provider BDD Response File to contain a minimum format of SVID/PooledBlock ID and TN/PooledBlock, based on a response file for either Subscription Version data or Block data.

Note: A Service Provider can either send back the same file (with SPID value appended at the end of the file name), or a truncated version of the rest of the data, as long as the first two columns are in the response file (previously NANC 322 req 8).

Example of BDD Response File: Subscription Versions BDD Response File for SPID 4768 (Block Response Files would contain the parenthetical attributes)

SVID (or Block ID) <pipe> TN (or Block value) <CR>
 123987|7032281234 <CR> (end of first TN with “positive” response)
 123988|7032281235 <CR> (end of second TN with “positive” response)
 123989|7032281236 <CR> (end of third TN with “positive” response)
 123990|7032281237 <CR> (end of fourth TN with “positive” response)
 123991|7032281238 <CR> (end of fifth TN with “positive” response)

Note: There will be separate files for Subscription Versions and Number Pool Blocks.

RR3-327 Complete File Processing for Service Provider BDD Response File

NPAC SMS shall require the file contents of the Service Provider BDD Response File to contain a “positive” response for each “in-sync” record from the original BDD File, and the NPAC SMS shall successfully process each record in a Service Provider BDD Response File once (previously NANC 322 Req 9).

Note: Service Providers cannot provide more than one BDD Response File for any given BDD File. The definition of a “positive” record in the response file is one where the Service Provider and the NPAC are “in-sync” (whether the Service Provider updated their database or already had the record in their database). So a “positive” response is synchronization-based, not action-based, and the NPAC will use this “positive” response as an indication to remove the Service Provider from the failed list, if applicable. In the case of a “negative” response, the record associated with the applicable TN/NPB should be removed from the response file and this Service Provider will **not** have their SPID removed from the failed list.

RR3-328 Processing of the Service Provider BDD Response File for Subscription Versions

NPAC SMS shall process the Service Provider BDD Response File, containing “positive” response records for the original BDD file, received from a Service Provider’s Secure FTP site as a result of the Service Provider receiving and processing a Bulk Data Download File or a Delta Bulk Data Download File for Subscription Versions (previously NANC 322 Req 1)

Note: For example in a situation where 1000 SVs are selected and placed in the BDD File, the NPAC will expect the Service Provider to provide a response file for those 1000 records, which would include up to 1000 “positive” responses. The definition of a “positive” record in the response file is one where the Service Provider and the NPAC are in sync (whether the Service Provider updated their database or already had the record in their database). So a “positive” response is synchronization-based, not action-based, and the NPAC will use this “positive” response as an indication to remove the Service Provider from the failed list, if applicable. In the case of a “negative” response, the record associated with the applicable TN/NPB should be removed from the response file and this Service Provider will **not** have their SPID removed from the failed list. So, a Service Provider receives a delta BDD that contains 1000 SVs, and they add 990 to their database, and confirm that 8 are already in their database and don’t need any changes. The BDD Response File would contain 998 “positive” responses that the NPAC would then process.

RR3-329 Removing a Service Provider from a Subscription Version Failed SP List

NPAC SMS shall remove a Service Provider from a Subscription Version Failed SP List based on the SVID contained in the Service Provider BDD Response File and the timestamp in the file name being greater than or equal to the broadcast timestamp (previously NANC 322 Req 3)

RR3-330 Processing of the Service Provider BDD Response File for Number Pooling Blocks

NPAC SMS shall process the Service Provider BDD Response File, containing “positive” response records for the original BDD file, received from a Service Provider’s Secure FTP site as a result of the Service Provider receiving and processing a Bulk Data Download File or a Delta Bulk Data Download File for Number Pooling Blocks (previously NANC 322 Req 2)

Note: For example in a situation where 12 Blocks are selected and placed in the BDD File, the NPAC will expect the Service Provider to provide a response file for those 12 records, which would include up to 12 “positive” responses. The definition of a “positive” record in the response file is one where the Service Provider and the NPAC are in sync (whether the Service Provider updated their database or already had the record in their database). So a “positive” response is synchronization-based, not action-based, and the NPAC will use this “positive” response as an indication to remove the Service Provider from the failed list, if applicable. In the case of a “negative” response, the record associated with the applicable TN/NPB should be removed from the response file and this Service Provider will **not** have their SPID removed from the failed list. So, a Service Provider receives a delta BDD that contains 12 Blocks, and they add 10 to their database, and confirm that 1 is already in their database and doesn’t need any changes. The BDD Response File would contain 11 “positive” responses that the NPAC would then process.

RR3-331 Removing a Service Provider from a Number Pooling Block Failed SP List

NPAC SMS shall remove a Service Provider from a Number Pooling Block Failed SP List based on the BlockID contained in the Service Provider BDD Response File and the timestamp in the file name being greater than or equal to the broadcast timestamp (previously NANC 322 Req 4)

RR3-332 Service Provider Not Found on the Failed SP List

NPAC SMS shall continue processing the Service Provider BDD Response File after finding that the SPID for one of the data items in the Service Provider BDD Response File does not match a SPID on the Failed SP List (previously NANC 322 Req 5)

RR3-333 Validation of SPID in the Service Provider BDD Response File Against SPID of the Secure FTP Directory

NPAC SMS shall validate the SPID of the Secure FTP directory against the SPID in the Service Provider BDD Response File it is retrieving (previously NANC 322 Req 6)

3.12 NPAC-NXX-X Information

3.12.1 NPAC-NXX-X Download Indicator Management

RR3-52 NPAC Customer SOA NPA-NXX-X Indicator

NPAC SMS shall provide a mechanism to indicate whether a Service Provider supports receiving the NPA-NXX-X data, by downloading this data to their SOA via the SOA-to-NPAC SMS Interface, using the Number Pooling NPA-NXX-X Object (Previously NC-1)

RR3-53 NPAC Customer SOA NPA-NXX-X Indicator – Default

NPAC SMS shall default the SOA NPA-NXX-X Indicator to **FALSE** (Previously NC-3)

RR3-54 NPAC Customer SOA NPA-NXX-X Indicator – Modification

NPAC SMS shall allow the NPAC SMS Administrator to modify the SOA NPA-NXX-X Indicator on the NPAC Customer record (Previously NC-5)

RR3-55 NPAC Customer LSMS NPA-NXX-X Indicator

NPAC SMS shall provide a mechanism to indicate whether a Service Provider supports receiving the NPA-NXX-X data, by downloading this data to their Local SMS via the NPAC SMS-to-Local SMS Interface, using the Number Pooling NPA-NXX-X Object (Previously NC-10)

RR3-56 NPAC Customer LSMS NPA-NXX-X Indicator – Default

NPAC SMS shall default the LSMS NPA-NXX-X Indicator to **FALSE** (Previously NC-20)

RR3-57 NPAC Customer LSMS NPA-NXX-X Indicator – Modification

NPAC SMS shall allow the NPAC SMS Administrator to modify the LSMS NPA-NXX-X Indicator on the NPAC Customer record (Previously NC-30)

RR3-58 NPAC Customer LSMS EDR Indicator

DELETED

RR3-59 NPAC Customer LSMS EDR Indicator – Default

NPAC SMS shall default the EDR Indicator to **TRUE** (Previously NC-60)

RR3-60 NPAC Customer LSMS EDR Indicator – Modification

DELETED

3.12.2 NPA-NXX-X Holder Information

RR3-61 Number Pool NPA-NXX-X Holder Information – NPAC Personnel OpGUI

NPAC SMS shall allow NPAC Personnel to add, modify, delete, and query NPA-NXX-X Holder information via the NPAC Administrative Interface (Previously N-10)

RR3-62 Number Pool NPA-NXX-X Holder Information – Service Provider Request

NPAC SMS shall reject a request from a Service Provider SOA via the SOA-to-NPAC SMS Interface, Service Provider via the NPAC SOA Low-tech Interface, or Service Provider via the NPAC SMS-to-Local SMS Interface, to add, modify, or delete, NPA-NXX-X Holder information as stored in the NPAC SMS (Previously N-20)

RR3-63 Number Pool NPA-NXX-X Holder Information – NPA-NXX Validation

NPAC SMS shall validate that the NPA-NXX specified in the addition of Number Pooling NPA-NXX-X Holder information is a valid NPA-NXX defined in the NPAC SMS (Previously N-30)

RR3-64 Number Pool NPA-NXX-X Holder Information – NPA-NXX Effective Date

DELETED

RR3-65 Number Pool NPA-NXX-X Holder Information – Duplicate NPA-NXX-X Validation

NPAC SMS shall validate that the NPA-NXX-X specified in the addition of Number Pooling NPA-NXX-X Holder Information is not a duplicate for another entry in the Number Pooling NPA-NXX-X Holder Information (Previously N-50)

RR3-68 Number Pool NPA-NXX-X Holder Information – Service Provider Local SMS NPA-NXX-X Indicator Download of NPA-NXX-X Object

NPAC SMS shall download Number Pooling NPA-NXX-X Information, for additions, modifications, and deletions, using the Number Pooling NPA-NXX-X Object, via the NPAC SMS-to-Local SMS Interface if the Service Provider's Local SMS NPA-NXX-X indicator is **TRUE** (Previously N-63)

RR3-69 Number Pool NPA-NXX-X Holder Information – Service Provider Local SMS NPA-NXX-X Indicator Suppression of Download of NPA-NXX-X Object

NPAC SMS shall suppress the download of Number Pooling NPA-NXX-X Information, for additions, modifications, and deletions, via the NPAC SMS-to-Local SMS Interface if the Service Provider's Local SMS NPA-NXX-X indicator is **FALSE** (Previously N-64)

RR3-743 Number Pool NPA-NXX-X Holder Information – ServiceProvider Local SMS Pseudo-LRN Indicator Download of NPA-NXX-X Object

NPAC SMS shall download Number Pooling NPA-NXX-X Information for additions, modifications, and deletions, using the Number Pooling NPA-NXX-X Object, via the NPAC SMS-to-Local SMS Interface, when an NPA-NXX-X is indicated as both SOA Origination and pseudo-LRN, when the Service Provider LSMS Pseudo-LRN Indicator is set to TRUE, and the New Service Provider value in the pseudo-LRN record is contained in the Service Provider's Pseudo-LRN Accepted SPID List (previously NANC 442 Req 48)

NPAC Data Administration

RR3-70 Number Pool NPA-NXX-X Holder Information – Filters for NPA-NXX-X Download to the Local SMS

NPAC SMS shall apply NPA-NXX Filters to NPA-NXX-X downloads to the Local SMS(s) (Previously N-65)

RR3-71 Number Pool NPA-NXX-X Holder Information – Service Provider SOA NPA-NXX-X Indicator Download of NPA-NXX-X Object

NPAC SMS shall download Number Pooling NPA-NXX-X Information, for additions, modifications, and deletions, using the Number Pooling NPA-NXX-X Object, via the SOA-to-NPAC SMS Interface if the Service Provider's SOA NPA-NXX-X indicator is **TRUE** (Previously N-66)

RR3-72 Number Pool NPA-NXX-X Holder Information – Service Provider SOA NPA-NXX-X Indicator Suppression of Download of NPA-NXX-X Object

NPAC SMS shall suppress the download of Number Pooling NPA-NXX-X Information, for additions, modifications, and deletions, via the SOA-to-NPAC SMS Interface if the Service Provider's SOA NPA-NXX-X indicator is **FALSE** (Previously N-67)

RR3-744 Number Pool NPA-NXX-X Holder Information – ServiceProvider SOA Pseudo-LRN Indicator Download of NPA-NXX-X Object

NPAC SMS shall download Number Pooling NPA-NXX-X Information for additions, modifications, and deletions, using the Number Pooling NPA-NXX-X Object, via the SOA-to-NPAC SMS Interface, when an NPA-NXX-X is indicated as both SOA Origination and pseudo-LRN, when the Service Provider SOA Pseudo-LRN Indicator is set to **TRUE**, and the New Service Provider value in the pseudo-LRN record is contained in the Service Provider's Pseudo-LRN Accepted SPID List (previously NANC 442 Req 47)

RR3-73 Number Pool NPA-NXX-X Holder Information – Filters for NPA-NXX-X Download to the SOA

NPAC SMS shall apply NPA-NXX Filters to NPA-NXX-X downloads to the SOA(s) (Previously N-68)

RR3-74 Number Pool NPA-NXX-X Holder Information – Validation Error

NPAC SMS shall report an error to the NPAC Personnel and reject the addition or modification of Number Pooling NPA-NXX-X Holder information, or the addition of an NPA Split, if validation errors occur as defined in Requirements RR3-63, RR3-65, RR3-85, RR3-96, RR3-32, RR3-482 and RR3-483 (Previously N-70, updated with NANC 394)

3.12.3 NPA-NXX-X Holder, NPAC Scheduling/Re-Scheduling of Block Creation

RR3-75.1 Number Pool NPA-NXX-X Holder Information –OpGUI Entry Field for NPAC or SOA Origination

NPAC SMS shall provide a mechanism for NPAC Personnel to select NPAC Origination or SOA Origination for the Block data, when creating NPA-NXX-X Holder information, via the NPAC Administrative Interface (Previously N-71 1)

NPAC Data Administration

RR3-75.2 Number Pool NPA-NXX-X Holder Information –OpGUI Entry Mechanism for Immediate or Scheduled Block Creation

NPAC SMS shall provide a mechanism for NPAC Personnel to request NPAC Block Creation for either immediate execution, once the Effective Date has been reached, or at a future date/time, via the NPAC Administrative Interface (Previously N-71 2)

RR3-75.3 Number Pool NPA-NXX-X Holder Information –OpGUI Entry Field for Scheduled Date/Time

NPAC SMS shall include the "Scheduled Date/Time for Block Activation" as an entry field in the format of MM/DD/YYYY and HH:MM, for the NPA-NXX-X Holder information via the NPAC Administrative Interface (Previously N-71 3)

RR3-76.1 Number Pool NPA-NXX-X Holder Information –Default for Scheduled Date/Time Entry Field

NPAC SMS shall default the value in the "Scheduled Date/Time for Block Activation" field in the NPAC Administrative Interface, to the greater of, the Effective Date and 00:01 (HH:MM) Central Time, or, the current date and time (Previously N-72 1)

RR3-76.2 Number Pool NPA-NXX-X Holder Information –Scheduled Date/Time Entry Field Validation

NPAC SMS shall validate that the "Scheduled Date/Time for Block Activation" field in the NPAC Administrative Interface, is a valid date and time, and is greater than or equal to the NPA-NXX-X Effective Date (Previously N-72 2)

RR3-77 Number Pool NPA-NXX-X Holder Information –Use of Scheduled Date/Time and NPAC Origination Entry Fields

NPAC SMS shall use the value in the "Scheduled Date/Time for Block Activation" field as the date and time, in Central Time, that the Block Creation scheduled event will occur, when the NPAC Origination has been selected by NPAC Personnel while creating NPA-NXX-X Holder information, or when re-scheduling a Block Create Event (Previously N-73)

RR3-78 Number Pool NPA-NXX-X Holder Information – Routing Data for NPAC Origination

NPAC SMS shall require NPAC Personnel to enter applicable Block routing data, via the NPAC Administrative Interface, when the NPAC Origination has been selected by NPAC Personnel while creating NPA-NXX-X Holder information, or when re-scheduling a Block Create Event (Previously N-74)

RR3-79.1 Number Pool NPA-NXX-X Holder Information – Routing Data Field Level Validation

NPAC SMS shall perform field-level data validations to ensure that the value formats for the following input data, are valid according to the formats specified in the Block Data Model upon Block creation scheduling for a Number Pool, or when re-scheduling a Block Create Event: (Previously N-75 1, reference NANC 399)

NPA-NXX-X Holder SPID
NPA-NXX-X
LRN (pseudo-LRN value of 000-000-0000)
Class DPC
Class SSN
LIDB DPC
LIDB SSN
CNAM DPC
CNAM SSN
ISVM DPC

ISVM SSN
 WSMSC DPC (if supported by the Block Holder SOA)
 WSMSC SSN (if supported by the Block Holder SOA)
 Number Pool Block SV Type (if supported by the Block Holder SOA)
 Alternative SPID (if supported by the Block Holder SOA)
 Last Alternative SPID (if supported by the Block Holder SOA)
 Alt-End User Location Value (if supported by the Block Holder SOA)
 Alt-End User Location Type (if supported by the Block Holder SOA)
 Alt-Billing ID (if supported by the Block Holder SOA)
 Voice URI (if supported by the Block Holder SOA)
 MMS URI (if supported by the Block Holder SOA)
 SMS URI (if supported by the Block Holder SOA)

RR3-79.2 Number Pool NPA-NXX-X Holder Information – Routing Data LRN Validation

NPAC SMS shall validate that the LRN specified in the scheduling/re-scheduling of Number Pooling Block Holder information is a valid LRN defined in the NPAC SMS for the Block Holder (Previously N-75 2)

RR3-80.1 Number Pool NPA-NXX-X Holder Information – Modification of Block Create Event

NPAC SMS shall provide a mechanism for NPAC Personnel to modify a Block Create Event that has been previously entered, but not yet executed, via the NPAC Administrative Interface (Previously N-76 1)

RR3-80.2 Number Pool NPA-NXX-X Holder Information – Modification of Scheduled Date/Time for Block Create Event

NPAC SMS shall allow NPAC Personnel to modify the scheduled date/time for an NPAC initiated Block Create Event, to a different date/time that is on or after the NPA-NXX-X effective date (Previously N-76 2)

RR3-80.3 Number Pool NPA-NXX-X Holder Information – Modification of Routing Data for Block Create Event

NPAC SMS shall allow NPAC Personnel to modify the routing data for an NPAC initiated Block Create Event (Previously N-76 3)

RR3-81.1 Number Pool NPA-NXX-X Holder Information – Re-schedule of NPAC Initiated Block Create

NPAC SMS shall provide a mechanism for NPAC Personnel to re-schedule a Block Create, for an existing NPA-NXX-X, via the NPAC Administrative Interface (Previously N-77 1)

RR3-81.2 Number Pool NPA-NXX-X Holder Information – Re-schedule of Block Create Scheduling Options

NPAC SMS shall provide a mechanism where the re-schedule of a Block Create, can be immediately executed or scheduled for a future date/time (Previously N-77 2)

RR3-81.3 Number Pool NPA-NXX-X Holder Information – Re-schedule of Block Create Immediate Execution Edit Check

NPAC SMS shall reject the re-schedule of a Block Create for immediate execution, prior to the effective date of the NPA-NXX-X (Previously N-77 3)

RR3-82.1 Number Pool NPA-NXX-X Holder Information – Reject Re-schedule Based on Status

NPAC SMS shall allow the re-schedule of a Block Create, if the Block does NOT exist in the NPAC SMS, or if the Block exists with a status of Old without a Failed SP List (Previously N-78 1)

RR3-82.2 Number Pool NPA-NXX-X Holder Information – Reject Re-schedule Based on Existing Block Create Event

NPAC SMS shall only allow a single Block Create Event that has not been previously executed for this Block, to exist in the NPAC SMS (Previously N-78 2)

RR3-82.3 Number Pool NPA-NXX-X Holder Information – Validation Error for Schedule/Re-Schedule of Block Create Event

NPAC SMS shall report an error to the NPAC Personnel and reject the addition or modification of a Number Pooling Block Create Event, if validation errors occur as defined in Requirements RR3-76 2, RR3-78, RR3-79 1, RR3-79 2, RR3-81 3, RR3-82 1, and RR3-82 2 (Previously N-78 3)

RR3-83.1 Number Pool NPA-NXX-X Holder Information – Error Message for Pending-Like No-Active SVs during Block Create

NPAC SMS shall provide an error dialog that displays the unique error message described in RR3-147, and provides an option for the NPAC Personnel to either, exit the Block Create request, or generate the Pending-Like No-Active Subscription Version(s) report, in the report format listed in RR9-11, RR9-12, RR9-13, and RR9-14, to the screen on the NPAC Administrative Interface, when NPAC Personnel are re-scheduling a Block Creation request for immediate execution (Previously N-79 1)

RR3-83.2 Number Pool NPA-NXX-X Holder Information – Pending-Like No-Active SVs Report Output Destinations

NPAC SMS shall, after displaying the Pending-Like No-Active Subscription Version(s) report to the screen, allow the NPAC Personnel to choose an output destination for the report, when NPAC Personnel are re-scheduling a Block Creation request for immediate execution (Previously N-79 2)

RR3-83.3 Number Pool NPA-NXX-X Holder Information – Pending-Like No-Active SVs Report Output Destinations for Multiple Destinations

NPAC SMS shall, continue to display the Pending-Like No-Active Subscription Version(s) report, to the screen, and allow the NPAC Personnel to choose additional output destinations one at a time, for the report, until the NPAC Personnel requests the closure of the report window, when NPAC Personnel are re-scheduling a Block Creation request for immediate execution (Previously N-79 3)

RR3-83.4 Number Pool NPA-NXX-X Holder Information – Output Destination for Pending-Like No-Active SVs

NPAC SMS shall provide output destination options for the Pending-Like No-Active Subscription Version(s) Report, based on the error message in RR3-83 1, that include print, fax, e-mail, stored to a file, when NPAC Personnel are re-scheduling a Block Creation request for immediate execution (Previously N-79 4)

3.12.4 NPA-NXX-X Holder, Addition

RR3-84 Addition of Number Pooling NPA-NXX-X Holder Information – Required Fields

NPAC SMS shall require NPAC personnel to specify the NPA-NXX-X Holder SPID, the NPA-NXX-X, and the Effective Date, as defined in the Number Pooling NPA-NXX-X Holder Information data model (Previously N-80)

RR3-85 Addition of Number Pooling NPA-NXX-X Holder Information – SPID Validation

NPAC SMS shall validate that the NPA-NXX-X Holder SPID is a valid Service Provider in the NPAC SMS (Previously N-90)

RR3-86 Addition of Number Pooling NPA-NXX-X Holder Information – Check for Pending-Like No-Active SVs

NPAC SMS shall reject the request and issue an error message to the NPAC personnel at the time of NPA-NXX-X Creation, if there are any TNs within the 1K Block of that NPA-NXX-X, or in a 1K Block of the corresponding old/new NPA-NXX-X belonging to an NPA-NXX scheduled for or currently in an NPA split, that contain an SV, with a status of pending/conflict/cancel-pending/failed, and where a currently active SV does NOT exist, for the given TN in cases where the Code Holder SPID and the Block Holder SPID are NOT the same value (Previously N-100)

RR3-87 Addition of Number Pooling NPA-NXX-X Holder Information – Check for Pending-Like Port-To-Original SVs

NPAC SMS shall reject the request and issue an error message to the NPAC personnel at the time of NPA-NXX-X Creation, if there are any TNs within the 1K Block, that contain an SV, with a status of pending/conflict/cancel-pending/failed, and where the SV is a Port-To-Original port, for the given TN in cases where the Code Holder SPID and the Block Holder SPID are NOT the same value (Previously N-110)

RR3-88.1 Addition of Number Pooling NPA-NXX-X Holder Information – Error Message for Pending-Like No-Active SVs and Pending-Like Port-To-Original SVs

NPAC SMS shall provide an error dialog that displays the unique error message described in RR3-86 and RR3-87, and provides an option for the NPAC Personnel to either, exit the NPA-NXX-X Create request, or generate the Pending-Like No-Active Subscription Version(s) and Pending-Like Port-to-Original Subscription Version(s) Report, in the report format listed in RR9-11, RR9-12, RR9-13, and RR9-14, to the screen on the NPAC Administrative Interface (Previously N-130 1)

RR3-88.2 Addition of Number Pooling NPA-NXX-X Holder Information –Pending-Like No-Active SVs and Pending-Like Port-To-Original SVs Report Selection of Output Destinations

NPAC SMS shall, after displaying the Pending-Like No-Active Subscription Version(s) and Pending-Like Port-to-Original Subscription Version(s) Report, to the screen, allow the NPAC Personnel to choose an output destination for the report (Previously N-130 2)

RR3-88.3 Addition of Number Pooling NPA-NXX-X Holder Information –Pending-Like No-Active SVs and Pending-Like Port-To-Original SVs Report Output Destinations for Multiple Destinations

NPAC SMS shall, continue to display the Pending-Like No-Active Subscription Version(s) and Pending-Like Port-to-Original Subscription Version(s) Report, to the screen, and allow the NPAC Personnel to choose additional output destinations one at a time, for the report, until the NPAC Personnel requests the closure of the report window (Previously N-130 3)

RR3-89 Addition of Number Pooling NPA-NXX-X Holder Information – Output Destination for Pending-Like No-Active SVs and Pending-Like Port-To-Original SVs

NPAC SMS shall provide output destination options, as listed in R9-2, for the Pending-Like No-Active Subscription Version(s) and Pending-Like Port-to-Original Subscription Version(s) Report, based on the error condition in RR3-88 1 (Previously N-131)

RR3-90 Addition of Number Pooling NPA-NXX-X Holder Information Effective Date Window–Tunable Parameter

DELETED

RR3-91 Addition of Number Pooling NPA-NXX-X Holder Information Effective Date Window – Tunable Parameter Default

DELETED

RR3-92 Addition of Number Pooling NPA-NXX-X Holder Information Effective Date – Validation

DELETED

RR3-482 Number Pooling NPA-NXX-X Holder Information Effective Date – Validation upon Addition

NPAC SMS shall verify that the Effective Date is equal to, or greater than, the NPA-NXX Live TimeStamp, and greater than or equal to the current date, when adding an NPA-NXX-X (previously NANC 394, Req 4)

RR3-470 Addition of Number Pooling NPA-NXX-X Holder Information Effective Date – Validation Within the NPA-NXX-X Holder Information Effective Date Window–Tunable Window

DELETED

RR3-745 Addition of Number Pooling NPA-NXX-X Holder Information – Active-LRN Number Pool Block Check for Pseudo-LRN SVs

NPAC SMS shall reject the request and issue an error message to the NPAC personnel at the time of NPA-NXX-X Creation for an active-LRN Number Pool Block, if there are any pseudo-LRN TNs within the 1K Block of that NPA-NXX-X (previously NANC 442, Req 70)

RR3-93 Addition of Number Pooling NPA-NXX-X Holder Information Effective Date – OpGUI Default

NPAC SMS shall set the time portion of the Effective Date Timestamp to 00 00 Central Time, and not allow the NPAC Personnel to modify the Time portion of the Effective Date, on the NPAC Administrative Interface (Previously N-170)

RR3-94 Addition of Number Pooling NPA-NXX-X Holder Information – Successful Validation

NPAC SMS shall, upon successful validation, store the NPA-NXX-X in the NPAC SMS, and broadcast the NPA-NXX-X to the Service Providers (Previously N-180)

3.12.5 NPA-NXX-X Holder, Modification

NPAC Data Administration

RR3-95 Modification of Number Pool NPA-NXX-X Holder Information – Effective Date Modification from OpGUI

NPAC SMS shall allow NPAC personnel to modify the effective date for an NPA-NXX-X as stored in the NPAC SMS via the NPAC Administrative Interface (Previously N-190)

RR3-96 Modification of Number Pool NPA-NXX-X Holder Information - Effective Date versus Current Date

NPAC SMS shall allow the NPAC personnel to modify the effective date for an NPA-NXX-X if the current date is less than the effective date for the NPA-NXX-X (Previously N-200)

RR3-97 Modification of Number Pool NPA-NXX-X Holder Information - Effective Date Update to Scheduled Block Create

NPAC SMS shall, upon modifying the effective date for an NPA-NXX-X, and where the Block Creation was a scheduled event within the NPAC SMS, also modify the corresponding date for that Block Create scheduled event (Previously N-210)

RR3-98 Modification of Number Pool NPA-NXX-X Holder Information Effective Date Window – Tunable Parameter Modification

DELETE

RR3-99 Modification of Number Pool NPA-NXX-X Holder Information Effective Date – Validation for Current Date

DELETED

RR3-100 Modification of Number Pool NPA-NXX-X Holder Information Effective Date – Validation for Tunable

DELETED

RR3-483 Modification of Number Pool NPA-NXX-X Holder Information Effective Date – Validation

NPAC SMS shall verify that the Effective Date is equal to, or greater than, the NPA-NXX Live TimeStamp, and greater than or equal to the current date, when modifying an NPA-NXX-X (previously NANC 394, Req 5)

RR3-471 Modification of Number Pool NPA-NXX-X Holder Information Effective Date – Validation Within the Tunable Parameter Number of Days

DELETED

RR3-746 Number Pool NPA-NXX-X Holder Information – Pseudo-LRN Indicator

NPAC SMS shall reject modification of the pseudo-LRN Indicator on the NPAC NPA-NXX-X record (previously NANC 442, Req 71)

RR3-101 Modification of Number Pooling NPA-NXX-X Holder Information – Successful Validation

NPAC SMS shall, upon successful validation, store the updates to the NPA-NXX-X in the NPAC SMS, and broadcast the updated NPA-NXX-X to the Service Providers (Previously N-235)

3.12.6 NPA-NXX-X Holder, Deletion

RR3-102 Deletion of Number Pool NPA-NXX-X Holder Information – NPA-NXX-X Data

NPAC SMS shall allow NPAC personnel to delete the NPA-NXX-X holder information for an NPA-NXX-X as stored in the NPAC SMS (Previously N-240)

RR3-103 Deletion of Number Pool NPA-NXX-X Holder Information – Single NPA-NXX-X at a time from OpGUI

NPAC SMS shall allow NPAC personnel to delete the NPA-NXX-X holder information for a single NPA-NXX-X at a time, via the NPAC Administrative Interface (Previously N-245)

RR3-104 Deletion of Number Pooling NPA-NXX-X Holder Information – Check for Pending-Like With Active POOL SVs

NPAC SMS shall reject the request and issue an error message to the NPAC personnel at the time of NPA-NXX-X Deletion, if there are any TNs within the 1K Block, that contain an SV with a status of pending/conflict/cancel-pending/failed where the Old SP is equal to the NPA-NXX-X Holder SPID, and the current active SV is LNP Type of POOL (Previously N-250)

RR3-105 Deletion of Number Pooling NPA-NXX-X Holder Information – Check for Port-to-Original SVs

NPAC SMS shall reject the request and issue an error message to the NPAC personnel at the time of NPA-NXX-X Deletion, if there are any TNs within the 1K Block, that contain an SV, where the SV is a Port-To-Original port (Previously N-260)

RR3-106 Deletion of Number Pooling NPA-NXX-X Holder Information – Check for non-Active Block

NPAC SMS shall reject the request and issue an error message to the NPAC personnel at the time of NPA-NXX-X Deletion, if the associated Block, contains a status other than Active, or the Failed SP List contains any SPIDs (Previously N-265)

RR3-107 Deletion of Number Pooling NPA-NXX-X Holder Information – Check for Sending SVs

NPAC SMS shall reject the request and issue an error message to the NPAC personnel at the time of NPA-NXX-X Deletion, if there are any Subscription Versions with a status of sending, as a result of a disconnect request for that given Subscription Version (Previously N-270)

RR3-108.1 Deletion of Number Pooling NPA-NXX-X Holder Information – Error Message for Pending-Like With Active POOL SVs and Pending-Like Port-To-Original SVs

NPAC SMS shall provide an error dialog that displays the unique error message described in RR3-104 and RR3-105, and provides an option for the NPAC Personnel to either, exit the NPA-NXX-X Delete request, or generate the Pending-Like With Active POOL Subscription Version(s) and Pending-Like Port-to-Original Subscription Version(s) Report, in the report format listed in RR9-15, RR9-16, RR9-17, and RR9-18, to the screen on the NPAC Administrative Interface (Previously N-280 1)

RR3-108.2 Deletion of Number Pooling NPA-NXX-X Holder Information –Pending-Like With Active POOL SVs and Pending-Like Port-To-Original SVs Report Selection of Output Destinations

NPAC SMS shall, after displaying the Pending-Like With Active POOL Subscription Version(s) and Pending-Like Port-to-Original Subscription Version(s) Report, to the screen, allow the NPAC Personnel to choose an output destination for the report (Previously N-280 2)

RR3-108.3 Deletion of Number Pooling NPA-NXX-X Holder Information –Pending-Like With Active POOL SVs and Pending-Like Port-To-Original SVs Report Output Destinations for Multiple Destinations

NPAC SMS shall, continue to display the Pending-Like With Active POOL Subscription Version(s) and Pending-Like Port-to-Original Subscription Version(s) Report, to the screen, and allow the NPAC Personnel to choose additional output destinations one at a time, for the report, until the NPAC Personnel requests the closure of the report window (Previously N-280 3)

RR3-109 Deletion of Number Pooling NPA-NXX-X Holder Information – Output Destination for Pending-Like and Active POOL SVs and Pending-Like Port-To-Original SVs

NPAC SMS shall provide output destination options, as listed in R9-2, for the Pending-Like With Active POOL Subscription Version(s) and Pending-Like Port-to-Original Subscription Version(s) Report, based on the error condition in RR3-108 1 (Previously N-281)

RR3-110 Deletion of Number Pool NPA-NXX-X Holder Information – Block and Subscription Version Data Dependency

NPAC SMS shall delete the NPA-NXX-X Holder Information for a 1K Block, through a multi-step process that includes: (Previously N-290)

- Broadcasting the delete of Blocks to Local SMSs
- Receiving a successful response from all Local SMSs
- Updating all SVs and Blocks on the NPAC SMS
- Deleting the NPA-NXX-X Holder information from the NPAC SMS
- Broadcasting the delete of NPA-NXX-X to the NPA-NXX-X enabled SOAs and Local SMSs

RR3-111 Deletion of Number Pool NPA-NXX-X Holder Information – NPA-NXX-X Dependency

NPAC SMS shall only delete the NPA-NXX-X Holder Information after successfully updating all associated SVs and Blocks to a status of Old with NO Failed SP List (Previously N-295)

RR3-112 Deletion of Number Pool NPA-NXX-X Holder Information – NPA-NXX-X With an Associated Block Create Scheduled Event

NPAC SMS shall delete an associated Block Create Scheduled Event, which has not been executed, when deleting the NPA-NXX-X Holder Information (Previously N-297)

3.12.7 NPA-NXX-X Holder, First Port Notification

RR3-228 Number Pool NPA-NXX-X Holder information notification of First Port

NPAC SMS shall notify all accepting Local SMSs and SOAs of the NPA-NXX, effective date, and owning Service Provider when no porting activity has occurred in the NPA-NXX, immediately after creation of a Number Pooling NPA-NXX-X (excluding Pseudo-LRN), including those automatically created by NPA Split processing (Previously N-330)

3.12.8 NPA-NXX-X Holder, Query

RR3-113 Query of Number Pool NPA-NXX-X Holder Information – NPAC Personnel and Service Provider Personnel

NPAC SMS shall allow NPAC personnel, Service Provider SOA via the SOA-to-NPAC SMS Interface, Local SMS via the NPAC SMS-to-Local SMS Interface, or Service Provider SOA via the NPAC SOA Low-tech Interface, to query the NPA-NXX-X holder information for all data as listed in the NPA-NXX-X Holder Information Data Model, for an NPA-NXX-X as stored in the NPAC SMS (Previously N-340)

RR3-114 Query of Number Pool NPA-NXX-X Holder Information – Return of Queried Data

NPAC SMS shall return to the NPAC Personnel or requesting Service Provider all NPA-NXX-Xs that match the query selection criteria, as listed in the NPA-NXX-X Holder Information Data Model, for an NPA-NXX-X as stored in the NPAC SMS (Previously N-360)

RR3-115 Query of Number Pool NPA-NXX-X Holder Information – Return of Queried Data to NPAC Personnel Only

NPAC SMS shall provide to NPAC Personnel only, an indicator on the NPAC Administrative Interface, only after completing a query, if an associated Block Create Scheduled Event, that has not been executed, exists in the NPAC SMS (Previously N-365)

RR3-747 Query of NPA-NXX-X Holder Information for Pseudo-LRN – Service Provider Personnel – SOA Interface

NPAC SMS shall allow a Service Provider SOA via the SOA-to-NPAC SMS Interface, to query NPA-NXX-X Holder Information for a pseudo-LRN record, if the value in the requesting Service Provider's SOA Pseudo-LRN Indicator is set to TRUE, and the New Service Provider value in the pseudo-LRN record is contained in the requesting Service Provider's Pseudo-LRN Accepted SPID List (previously NANC 442, Req 49)

RR3-748 Query of NPA-NXX-X Holder Information for Pseudo-LRN – Service Provider Personnel – LSMS Interface

NPAC SMS shall allow a Service Provider Local SMS via the NPAC SMS-to-Local SMS Interface, to query NPA-NXX-X Holder Information for a pseudo-LRN record, if the value in the requesting Service Provider's LSMS Pseudo-LRN Indicator is set to TRUE, and the New Service Provider value in the pseudo-LRN record is contained in the requesting Service Provider's Pseudo-LRN Accepted SPID List (previously NANC 442, Req 50)

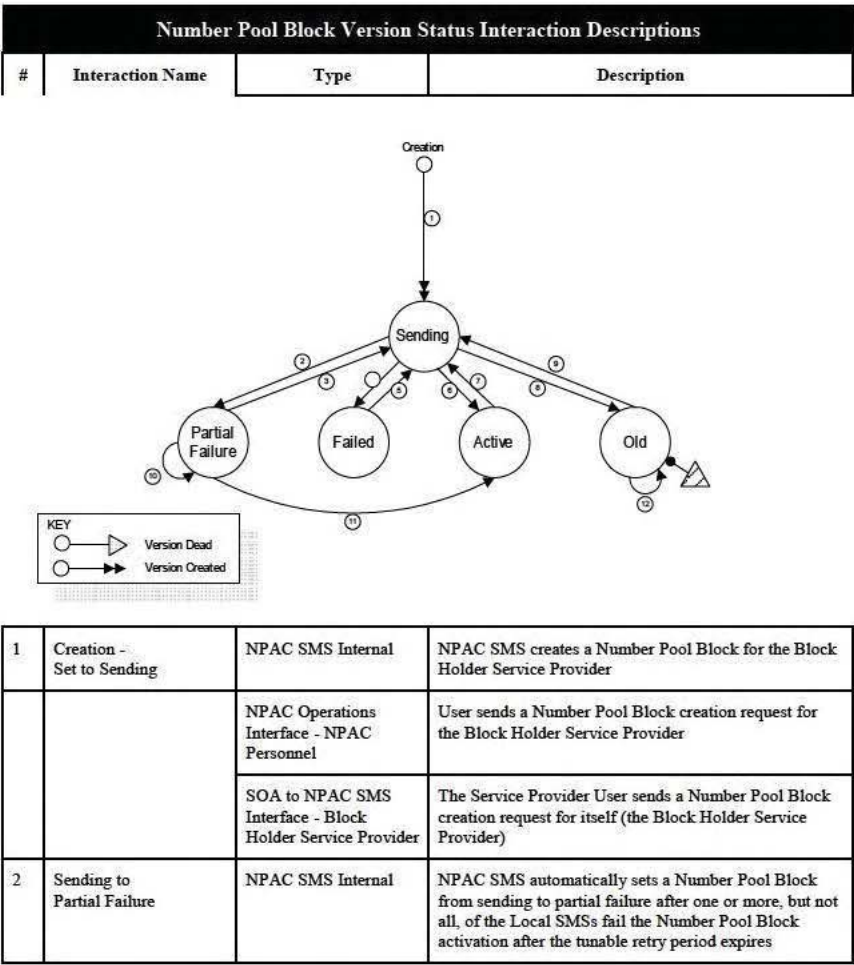
RR3-749 Query NPA-NXX-X Holder Information for Pseudo-LRN – Service Provider Personnel – LTI

NPAC SMS shall allow a Service Provider via the NPAC SOA Low-tech Interface, to query NPA-NXX-X Holder Information for a pseudo-LRN record, if the Service Provider Low-Tech Interface Pseudo-LRN Support Flag Indicator is TRUE (previously NANC 442, Req 51)

3.13 Block Information

3.13.1 Version Status

Figure 3-2 – Number Pool Block Version Status Interaction Diagram



| Number Pool Block Version Status Interaction Descriptions | | | |
|---|----------------------------|---|--|
| # | Interaction Name | Type | Description |
| 3 | Partial Failure to Sending | NPAC Operations Interface - NPAC Personnel | User re-sends a partial failure Number Pool Block |
| 4 | Sending to Failed | NPAC SMS Internal | NPAC SMS automatically sets a Number Pool Block from sending to failed after all Local SMSs fail Number Pool Block activation after the tunable retry period expires |
| 5 | Failed to Sending | NPAC Operations Interface - NPAC Personnel | User re-sends a failed Number Pool Block |
| 6 | Sending to Active | NPAC SMS Internal | <ol style="list-style-type: none"> 1 NPAC SMS automatically sets a sending Number Pool Block to active after the Number Pool Block activation is successful in all of the Local SMSs 2 NPAC SMS automatically sets a sending Number Pool Block to active after the Number Pool Block modification is broadcast to all of the Local SMSs and either all have responded or retries have been exhausted 3 NPAC SMS automatically sets a sending Number Pool Block to active after a failure to all Local SMSs on a de-pool |
| 7 | Active to Sending | NPAC Operations Interface - NPAC Personnel | <ol style="list-style-type: none"> 1 User de-pools an active Number Pool Block 2 User modifies an active Number Pool Block 3 User resends a failed de-pool or modify Number Pool Block |
| | | SOA to NPAC SMS Interface - Block Holder Service Provider | User modifies an active Number Pool Block |
| 8 | Sending to Old | NPAC SMS Internal | <ol style="list-style-type: none"> 1 NPAC SMS automatically sets a sending Number Pool Block to old after a de-pool to all Local SMSs successfully completes 2 NPAC SMS automatically sets a sending Number Pool Block to old after a de-pool that fails on one or more, but not all Local SMSs |
| 9 | Old to Sending | NPA Operations Interface – NPAC Personnel | User re-sends a partial failure of a de-pool |

NPAC Data Administration

| Number Pool Block Version Status Interaction Descriptions | | | |
|---|------------------------------------|-------------------|---|
| # | Interaction Name | Type | Description |
| 10 | Partial Failure to Partial Failure | NPAC SMS Internal | NPAC SMS automatically sets a Number Pool Block from partial failure to partial failure after one or more, but not all previously failed Local SMSs successfully activate a Number Pool Block, as a result of an audit or LSMS recovery. The Failed_SP_List is updated to reflect the updates to the previously failed SPs. |
| 11 | Partial Failure to Active | NPAC SMS Internal | NPAC SMS automatically sets a Number Pool Block from partial failure to active after all previously failed Local SMSs successfully activate a Number Pool Block, as a result of an audit or LSMS recovery. The Failed_SP_List is updated to reflect the updates to the previously failed SPs. |
| 12 | Old to Old | NPAC SMS Internal | NPAC SMS automatically sets a Number Pool Block from old to old after one or more previously failed Local SMSs successfully de-pools a Number Pool Block, as a result of an audit or LSMS recovery. The Failed_SP_List is updated to reflect the updates to the previously failed SPs. |

Table 3-122 Number Pool Block Version Status Interaction Descriptions

3.13.2 Block Holder, General

RR3-119 Number Pool Block Holder Information – NPAC Personnel OpGUI

NPAC SMS shall allow NPAC Personnel to add, modify, or query Block Holder information via the NPAC Administrative Interface. (Previously B-10)

RR3-120 Number Pool Block Holder Information – Download of Block Object

NPAC SMS shall download Number Pooling Block Information, for additions, modifications, deletions, re-sends, and resync using the Number Pooling Block Object, via the NPAC SMS-to-Local SMS Interface. (Previously B-20)

RR3-121 Number Pool Block Holder Information – NPAC Customer EDR Indicator Download of SVs DELETED

RR3-122 Number Pool Block Holder Information – NPAC Customer EDR Indicator For Requests But Not Retries DELETED

RR3-123 Number Pool Block Holder Information – Data Integrity for Block and Pooled Subscription Versions

NPAC SMS shall maintain data integrity for LRN and GTT data, between a Number Pooling Block and the corresponding Subscription Versions with LNP Type of POOL in that 1K Block, in the NPAC SMS (Previously B-34)

RR3-124 Number Pool Block Holder Information – Service Provider Validation

NPAC SMS shall verify the Block Holder SPID attribute of the Block object matches the SPID in the accessControl for SOA Block Activation (Previously B-40)

RR3-125 Number Pool Block Holder Information – SPID Validation

NPAC SMS shall verify the SPID of the accessControl matches the owner of the association or one of its secondary providers (Previously B-50)

RR3-126 Number Pool Block Holder Information – NPA-NXX-X Data Validation

NPAC SMS shall, upon receiving a block activate request, validate that the SPID and the NPA-NXX-X attributes in the request are the same as the SPID and the NPA-NXX-X in a single entry in the NPA-NXX-X Holder Information (Previously B-60)

RR3-127 Number Pool Block Holder Information – NPA-NXX-X Effective Date

NPAC SMS shall reject a request to create a Block if the current date is prior to the effective date of the Number Pooling NPA-NXX-X as defined in the NPAC SMS (Previously B-70)

RR3-128 Number Pool Block Holder Information – LRN Validation

NPAC SMS shall validate that the LRN (excluding pseudo-LRN) specified in the addition or modification of Number Pooling Block Holder information is a valid LRN defined in the NPAC SMS for the Block Holder (Previously B-80)

RR3-334 Validation of LATA ID for Number Pool Block Creates

NPAC shall reject Number Pool Block Create Requests if the NPA-NXX of the NPA-NXX-X and the NPA-NXX of the LRN have different LATA IDs (previously NANC 319 Req 8)

RR3-335 Validation of LATA ID for Number Pool Block Modifies

NPAC shall reject Number Pool Block Modify Requests if the NPA-NXX of the NPA-NXX-X and the NPA-NXX of the LRN have different LATA IDs (previously NANC 319 Req 9)

RR3-129 Number Pool Block Holder Information – Duplicate Block Validation

NPAC SMS shall validate that the NPA-NXX-X specified in the addition of Number Pooling Block Holder Information does not already exist in the Number Pooling Block Holder Information, except for a status of Old where the Block's Failed SP List is empty (Previously B-90)

RR3-130 Number Pool Block Holder Information – SOA Origination Values

NPAC SMS shall set the SOA Origination to TRUE for Blocks sent over the SOA-to-NPAC SMS Interface or for Blocks sent over the NPAC SOA Low-tech Interface, and to FALSE for Blocks that were created by NPAC personnel, except where the value will be maintained from the Old Block, as a result of an NPA Split (Previously B-100)

RR3-750 Number Pool Block Holder Information – Service Provider Tunable Value of TRUE for Pseudo-LRN Request

NPAC SMS shall accept a block activate request for a pseudo-LRN record from a Service Provider SOA only when the NPAC Customer SOA Pseudo-LRN Indicator is set to TRUE (previously NANC 442, Req 5)

RR3-751 Number Pool Block Holder Information – Service Provider Validation for Pseudo-LRN Request of NPA-NXX Ownership

NPAC SMS shall, upon receiving a block activate request for a pseudo-LRN record, verify the Block Holder SPID attribute of the Block object matches the SPID in the NPA-NXX for this corresponding NPA-NXX-X (previously NANC 442, Req 7)

NOTE: A valid block activate request is accepted regardless of the specification of NPAC Origination or SOA Origination at the time of the NPA-NXX-X Creation

RR3-752 Number Pool Block Holder Information – Type Validation for Pseudo-LRN and Active-LRN Request

NPAC SMS shall reject a block activate request if the request type is different from the NPA-NXX-X (previously NANC 442, Req 83)

NOTE: An NPA-NXX-X created for a pseudo-LRN Number Pool Block must have a block activate request for a pseudo-LRN Block. An NPA-NXX-X created for an active-LRN Number Pool Block must have a block activate request for an active-LRN Block

RR3-753 Number Pooling Block Holder Information – Broadcast of Block Data to Local SMS for Pseudo-LRN

NPAC SMS shall broadcast a Block to Local SMSs for additions, modifications, deletions, re-sends, and resync, via the NPAC SMS-to-Local SMS Interface, for a pseudo-LRN record only when the Service Provider LSMS Pseudo-LRN Indicator is set to TRUE, and the New Service Provider value in the pseudo-LRN record is contained in the Service Provider's Pseudo-LRN Accepted SPID List (previously NANC 442, Req 8)

RR3-754 Number Pooling Block Holder Information – Broadcast of Subscription Version Data to non-EDR Local SMS for Pseudo-LRN

DELETED

RR3-131 Number Pool Block Holder Information – Validation Error

NPAC SMS shall report an error to the user and reject the addition or modification of Number Pooling Block Holder information if validation errors occur as defined in RR3-124, RR3-125, RR3-126, RR3-127, RR3-128, RR3-129, RR3-146, and RR3-149 (Previously B-110)

RR3-132 Number Pooling Block Holder Information –Update Notification

NPAC SMS shall *send* all SOA notifications to the current SP (the block holder) for updates on Blocks, when the Block SOA Origination is TRUE (Previously B-120)

RR3-133 Number Pooling Block Holder Information –Update Notification Suppression

NPAC SMS shall *suppress* all SOA notifications to the current SP (the block holder) for updates on Blocks, when the Block SOA Origination is FALSE (Previously B-130)

RR3-134 Number Pooling Block Holder Information – Failed SP List Update for Block for Local SMS

NPAC SMS shall consider a Local SMS to be discrepant and shall update the Block Failed SP List, based on a Local SMS failing to process the Block Object, for an addition, modification, deletion, re-send, resync, or mass update (Previously B-140)

RR3-135 Number Pooling Block Holder Information – Failed SP List Update for Subscription Versions for non-EDR Local SMS

DELETED

RR3-136 Number Pooling Block Holder Information – Failed SP List Sent to Block Holder

NPAC SMS shall send the Block Failed SP List, to the current SP (the block holder) via the SOA-to-NPAC SMS Interface, along with the SOA notification for status update of the Block, when the Block SOA Origination is TRUE, and the broadcast to one or more Local SMSs fail (Previously B-160)

RR3-137.1 Number Pooling Block Holder Information – Synchronization of Block Status and Subscription Version Status

NPAC SMS shall ensure that the *status* for a Number Pool Block and associated Subscription Versions with LNP Type of POOL are synchronized by performing the following: (Previously B-165 1)




- The *status* for the Block and Subscription Versions shall cross-reference one another and contain the results of the broadcast of the Block to the Local SMSs
- The *status* for each Subscription Version shall only be set, once the broadcasts of the Block to all Local SMSs has been completed, and a response has been received by all Local SMSs or retries have been exhausted
- The *status* for the Block shall only be set, once the broadcasts of the Block to all Local SMSs has been completed, and a response has been received by all Local SMSs or retries have been exhausted
- The *status* for the Block shall reflect the information contained in Tables RR3-137 2, RR3-137 3, and RR3-137 4

Key for Tables RR3-137 2, RR3-137 3, and RR3-137 4

Act = Active status
Part = Partial Failure status
Fail = Failed status
Old = Old status

RR3-137.2 Number Pooling Block Holder Information – Synchronization of Block Status and Subscription Version Status for Block Creation

NPAC SMS shall set the *status* of a Block for Block Creation, based on the data contained in Table RR3-137.2 (Previously B-165.2)

| Table RR3-137.2 -- Block Creation | | | | | | | | | | |
|-----------------------------------|---|---|---|--|--|--|--|--|-----------------------------|-------|
| | Local SMS | | | | | | | | All Pooled SVs in the Block | Block |
| | all Local SMSs respond successfully | some but not all Local SMSs respond successfully | none of the Local SMSs respond successfully | | | | | | | |
| 1 |  | | | | | | | | Act | Act |
| | | | | | | | | | | |
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| 6 | |  | | | | | | | Part | Part |
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| 15 | | |  | | | | | | Fail | Fail |




Requirement Table 3-1, RR3-137.2 -- Block Creation

As a summary of the table, the Block's status will be set on Creation to:

- Active, if ALL Local SMSs respond successfully
- Failed, if ALL Local SMSs respond unsuccessfully, or retries are exhausted
- Partial Failure, for all other cases

RR3-137.3 Number Pooling Block Holder Information – Synchronization of Block Status and Subscription Version Status for Block Modification

NPAC SMS shall set the *status* of a Block for Block Modification, based on the data contained in Table RR3-137.3 (Previously B-165.3)

| Table RR3-137.3 -- Block Modification | | | | | | | | | | |
|---------------------------------------|---|---|---|--|--|--|--|--|-----------------------------|-------|
| | Local SMS | | | | | | | | All Pooled SVs in the Block | Block |
| | all Local SMSs respond successfully | some but not all Local SMSs respond successfully | none of the Local SMSs respond successfully | | | | | | | |
| 1 |  | | | | | | | | Act | Act |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| 6 | |  | | | | | | | Act | Act |
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| 15 | | |  | | | | | | Act | Act |




Requirement Table 3-2, RR3-137.3 -- Block Modification

As a summary of the table, the Block's status will be set on Modification to:

- Active, for all cases

RR3-137.4 Number Pooling Block Holder Information – Synchronization of Block Status and Subscription Version Status for Block Deletion

NPAC SMS shall set the *status* of a Block for Block Deletion, based on the data contained in Table RR3-137.4 (Previously B-165.4)

| Table RR3-137.4 -- Block Deletion | | | | | | | | | | |
|-----------------------------------|---|---|---|--|--|--|--|--|-----|-----|
| | Local SMS | | | | | | | | | |
| | all Local SMSs respond successfully | some but not all Local SMSs respond successfully | none of the Local SMSs respond successfully | | | | | | | |
| 1 |  | | | | | | | | Old | Old |
| | | | | | | | | | | |
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| | | | | | | | | | | |
| 6 | |  | | | | | | | Old | Old |
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| 15 | | |  | | | | | | Act | Act |

Requirement Table 3-3, RR3-137.4 -- Block Deletion

As a summary of the table, the Block's status will be set on Deletion to:

- Active, if ALL Local SMSs respond unsuccessfully, or retries are exhausted
- Old, for all other cases

RR3-138.1 Number Pooling Block Holder Information – Synchronization of Block Failed SP List and Subscription Version Failed SP List




NPAC SMS shall ensure that the *Block Failed SP List* and the *Subscription Versions Failed SP Lists* for a Number Pool Block and associated Subscription Versions with LNP Type of POOL are synchronized by performing the following: (Previously B-166.1)

NPAC Data Administration

- The **Block Failed SP List** for the Block and **Subscription Versions Failed SP Lists** for the Subscription Versions shall cross-reference one another and contain the results of the broadcast of the Block to the Local SMSs
- The **Subscription Versions Failed SP Lists** for the Subscription Versions shall be set, based on the results of the Block broadcasts to all Local SMSs, and a response has been received by all Local SMSs or retries have been exhausted, for Activations, Modifications, and Deletions
- The **Block Failed SP List** for the Block shall be set, based on the results of the Block broadcasts to all Local SMSs, and a response has been received by all Local SMSs or retries have been exhausted
- The **Block Failed SP List** for the Block shall reflect the information contained in Table RR3-138 2

RR3-138.2 Number Pooling Block Holder Information – Synchronization of Block Failed SP List and Subscription Version Failed SP List for Block Creation, Modification, or Deletion

NPAC SMS shall set the **Block Failed SP List** of a Block for updates, based on the data contained in Table RR3-138 2 (Previously B-166 2)

| Table RR3-138.2 – Failed SP List | | | | | | | | | | |
|----------------------------------|---|---|---|--|--|--|--|--|-----------------------------|-------|
| | Local SMS | | | | | | | | All Pooled SVs in the Block | Block |
| | all Local SMSs respond successfully | some but not all Local SMSs respond successfully | none of the Local SMSs respond successfully | | | | | | | |
| 1 |  | | | | | | | | ZFSL | ZFSL |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| 6 | |  | | | | | | | SFSL | SFSL |
| | | | | | | | | | | |
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| | | | | | | | | | | |
| 15 | | |  | | | | | | AFSL | AFSL |

Requirement Table 3-4, RR3-138.2 – Failed SP List

Key for Table RR3-138 2

ZFSL = Zero Failed SP List (no SPs in the list)

SFSL = Some but not all Failed SP List (some but not all SPs in the list)

AFSL = All Failed SP List (all SPs in the list)

RR3-139 Number Pooling Block Holder Information – Synchronization of Block Failed SP List and Subscription Version Failed SP List for the last failed Subscription Version in the 1K Block

DELETED

RR3-140 Number Pooling Block Holder Information – Synchronization of Block Failed SP List and Subscription Version Failed SP List for the Block

NPAC SMS shall remove a Service Provider from ALL subscription versions' *Failed SP List* when the Service Provider is no longer on the *Block Failed SP List* (Previously B-168)

RR3-141.1 Number Pooling Block Holder Information – Unique Error Message for Partial Failure or Failed Status Update to a Block for Block Activation Requests Initiated by NPAC Personnel

NPAC SMS shall generate a unique alarmable error message when a Block's status is initially set to either Partial Failure or Failed, for Block Activation requests initiated by NPAC Personnel (Previously B-169 1 1)

RR3-141.3 Number Pooling Block Holder Information – Unique Error Message for Active Status With a Failed SP List Update to a Block

NPAC SMS shall generate a unique alarmable error message when a Block's status is updated to Active with a Failed SP List, for each occurrence, for Block Modification requests initiated by NPAC Personnel (Previously B-169 2)

RR3-141.4 Number Pooling Block Holder Information – Unique Error Message for Old Status With a Failed SP List Update to a Block

NPAC SMS shall generate a unique alarmable error message when a Block's status is updated to Old with a Failed SP List, for Block Deletion requests that were initiated through the NPA-NXX-X deletion by NPAC Personnel (Previously B-169 3)

RR3-142.1 Number Pooling Block Holder Information – Block Broadcast Monitoring Mechanism

NPAC SMS shall provide a mechanism to send a recurring page to NPAC Personnel, based on a configurable interval, when a unique alarmable error message is generated as defined in RR3-141 1, RR3-141 3, or RR3-141 4 (Previously B-169 6)

Note: The configurable interval will be set by M&P

RR3-142.2 Number Pooling Block Holder Information – Block Broadcast Monitoring Mechanism Completion

NPAC SMS shall provide a mechanism to stop the recurring page to NPAC Personnel, whenever the Block's status is set to Active AND the Block Failed SP List is empty, or, the Block's status is set to Old AND the Block Failed SP List is empty (Previously B-169 7)

RR3-143 Number Pool Block Holder Information – Filters for Blocks

NPAC SMS shall apply NPA-NXX Filters to Block broadcasts to the Local SMS(s) (Previously B-560)

3.13.3 Block Holder, Addition

RR3-144 Addition of Number Pooling Block Holder Information

NPAC SMS shall allow NPAC personnel, Service Provider via the SOA-to-NPAC SMS Interface, or Service Provider via the NPAC SOA Low-tech Interface, to request the creation of a Number Pooling Block (Previously B-170)

RR3-145 Addition of Number Pool Block Holder Information – Rejected from LSMS

NPAC SMS shall reject a request to create a Block by a Service Provider via the NPAC SMS-to-Local SMS Interface, and will return an error message to the LSMS (Previously B-175)

RR3-146 Addition of Number Pooling Block Holder Information – Required Data

NPAC SMS shall require NPAC personnel or Service Provider via the SOA-to-NPAC SMS Interface to specify the Block Holder SPID, the NPA-NXX-X, and the initial routing information, as defined in the Number Pooling Block Holder Information (Previously B-180)

RR3-147 Addition of Number Pooling Block Holder Information – Check for pending-like SVs for NPAC Personnel

NPAC SMS shall reject the request and issue a unique alarmable error message to the **NPAC personnel** at the time of Block Creation for an NPAC initiated request, from the NPAC Administrative Interface, if there are any TNs within the 1K Block, that contain an SV, with a status of pending/conflict/cancel-pending/failed, and where a currently active SV does NOT exist, for the given TN in cases where the Code Holder SPID and the Block Holder SPID are NOT the same value (Previously B-190)

RR3-148 Addition of Number Pooling Block Holder Information – Error Message to SOA for pending-like SVs

NPAC SMS shall reject the request and issue an error message to the **SOA** at the time of Block Creation from the SOA via the SOA-to-NPAC SMS Interface, if there are any TNs within the 1K Block, that contain an SV, for a given TN in the 1K Block, with a status of pending/conflict/cancel-pending/failed, and where a currently active SV does NOT exist, for the given TN in cases where the Code Holder SPID and the Block Holder SPID are NOT the same value (Previously B-210)

RR3-149 Addition of Number Pooling Block Holder Information – Field-level Data Validation

NPAC SMS shall perform field-level data validations to ensure that the value formats for the following input data, is valid according to the formats specified in the Subscription Version Data Model upon Block creation for a Number Pool: (Previously B-250, reference NANC 399)

- NPA-NXX-X Holder SPID
- NPA-NXX-X
- LRN (pseudo-LRN value of 000-000-0000)
- Class DPC
- Class SSN
- LIDB DPC
- LIDB SSN
- CNAM DPC
- CNAM SSN
- ISVM DPC
- ISVM SSN
- WSMSC DPC (if supported by the Block Holder SOA)
- WSMSC SSN (if supported by the Block Holder SOA)
- Number Pool Block SV Type (if supported by the Block Holder SOA)
- Alternative SPID (if supported by the Block Holder SOA)
- Last Alternative SPID (if supported by the Block Holder SOA)
- Alt-End User Location Value (if supported by the Block Holder SOA)
- Alt-End User Location Type (if supported by the Block Holder SOA)
- Alt-Billing ID (if supported by the Block Holder SOA)
- Voice URI (if supported by the Block Holder SOA)

MMS URI (if supported by the Block Holder SOA)
SMS URI (if supported by the Block Holder SOA)

RR3-698 Addition of Number Pooling Block Holder Information –DPC-SSN Field-level Data Validation

NPAC SMS shall perform field-level data validations to ensure that the values for the following input data, if supplied, is valid according to the Service Provider DPC-SSN source data, when Creating Number Pool Blocks via the SOA Low-Tech Interface or NPAC Administrative Interface: (previously NANC 427, Req 6 4)

- Class DPC
- Class SSN
- LIDB DPC
- LIDB SSN
- CNAM DPC
- CNAM SSN
- ISVM DPC
- ISVM SSN
- WSMSC DPC
- WSMSC SSN

RR3-699 Addition of Number Pooling Block Holder Information – Validation of DPC-SSNs for Number Pool Block Creates

NPAC shall reject New Service Provider Number Pool Block Create requests from the SOA Low-Tech Interface or NPAC Administrative Interface if a DPC-SSN is specified and a valid DPC-SSN reference does not exist in the Service Provider DPC source data (previously NANC 427, Req 6 5)

RR3-150 Addition of Number Pooling Block Holder Information – Broadcast of Block Data

NPAC SMS shall, upon successfully creating a Block, set the Block's status to sending, and broadcast an addition of a Block, to Local SMSs, via the NPAC SMS-to-Local SMS Interface (Previously B-260)

RR3-151 Addition of Number Pooling Block Holder Information – Activation Broadcast Complete Timestamp Update

NPAC SMS shall update the *Activation Broadcast Complete Timestamp* of the Block upon completion of the broadcast, and the FIRST successful response, for a Local SMS (Previously B-265)

RR3-152 Addition of Number Pooling Block Holder Information – Status Update

NPAC SMS shall update the *status* of the Block upon completion of the Activation broadcast, and a response from ALL Local SMSs, or retries are exhausted, as defined in RR3-137 1 and RR3-137 2 (Previously B-270)

RR3-153 Addition of Number Pooling Block Holder Information – Failed SP List Update

NPAC SMS shall update the *Block Failed SP List* upon completion of the Activation broadcast, and a response from ALL Local SMSs, or retries are exhausted, as defined in RR3-138 1, and RR3-138 2 (Previously B-275)

RR3-496 Activate Number Pool Block - Send Number Pool Block SV Type Data to Local SMSs

NPAC SMS shall, for a Service Provider that supports SV Type data, send the Number Pool Block SV Type attribute for an activated Number Pool Block via the NPAC SMS-to-Local SMS Interface to the Local SMSs (previously NANC 399, Req 15)

RR3-497 Activate Number Pool Block - Send Alternative SPID to Local SMSs

NPAC SMS shall, for a Service Provider that supports Alternative SPID, send the Alternative SPID attribute for an activated Number Pool Block via the NPAC SMS-to-Local SMS Interface to the Local SMSs (previously NANC 399, Req 16)

RR3-543 Activate Number Pool Block - Send Last Alternative SPID to Local SMSs

NPAC SMS shall, for a Service Provider that supports Last Alternative SPID, send the Last Alternative SPID attribute for an activated Number Pool Block via the NPAC SMS-to-Local SMS Interface to the Local SMSs (previously NANC 438, Req 8)

RR3-544 Activate Number Pool Block - Send Alt-End User Location Value to Local SMSs

NPAC SMS shall, for a Service Provider that supports Alt-End User Location Value, send the Alt-End User Location Value attribute for an activated Number Pool Block via the NPAC SMS-to-Local SMS Interface to the Local SMSs (previously NANC 436, Req 7)

RR3-545 Activate Number Pool Block - Send Alt-End User Location Type to Local SMSs

NPAC SMS shall, for a Service Provider that supports Alt-End User Location Type, send the Alt-End User Location Type attribute for an activated Number Pool Block via the NPAC SMS-to-Local SMS Interface to the Local SMSs (previously NANC 436, Req 7 1)

RR3-546 Activate Number Pool Block - Send Alt-Billing ID to Local SMSs

NPAC SMS shall, for a Service Provider that supports Alt- Billing ID, send the Alt- Billing ID attribute for an activated Number Pool Block via the NPAC SMS-to-Local SMS Interface to the Local SMSs (previously NANC 436, Req 7 2)

RR3-547 Activate Number Pool Block - Send Voice URI to Local SMSs

NPAC SMS shall, for a Service Provider that supports Voice URI, send the Voice URI attribute for an activated Number Pool Block via the NPAC SMS-to-Local SMS Interface to the Local SMSs (previously NANC 429, Req 8)

RR3-548 Activate Number Pool Block - Send MMS URI to Local SMSs

NPAC SMS shall, for a Service Provider that supports MMS URI, send the MMS URI attribute for an activated Number Pool Block via the NPAC SMS-to-Local SMS Interface to the Local SMSs (previously NANC 430, Req 8)

RR3-549 Activate Number Pool Block - Send SMS URI to Local SMSs

NPAC SMS shall, for a Service Provider that supports SMS URI, send the SMS URI attribute for an activated Number Pool Block via the NPAC SMS-to-Local SMS Interface to the Local SMSs (previously NANC 435, Req 8)

RR3-755 Activate Number Pool Block – Send Notification of Activation of Pseudo-LRN Record

NPAC SMS shall send a notification to the current Service Provider when a Number Pool Block is set to active/partial failure/failed upon activation of a Number Pool Block of a pseudo-LRN record only if the NPAC Customer SOA Pseudo-LRN Indicator is set to TRUE, the NPAC Customer SOA Pseudo-LRN Notification Indicator is set to TRUE, and the SOA Origination Flag is set to TRUE (previously NANC 442, Req 10)

3.13.4 Block Holder, Modification

RR3-154 Block's SOA Origination Indicator – NPAC Personnel OpGUI

NPAC SMS shall allow NPAC Personnel to modify the SOA Origination Indicator on the NPAC Block record, via the NPAC Administrative Interface (Previously B-315)

RR3-155 Block's SOA Origination Indicator – Suppress Broadcast

NPAC SMS shall suppress the broadcast to a Local SMS, of a modification to a Block's SOA Origination Indicator (Previously B-317)

RR3-156 Block's SOA Origination Indicator – Suppress Creation When False

NPAC SMS shall suppress the creation of a Block modification notification, when the Block's SOA Origination Indicator is modified to FALSE (Previously B-318)

RR3-157 Modification of Number Pooling Block Holder Information – Routing Data

NPAC SMS shall allow NPAC personnel, Service Provider via the SOA-to-NPAC SMS Interface, or Service Provider via the NPAC SOA Low-tech Interface, to modify the block holder default routing information (LRN (excluding setting or removing pseudo-LRN), DPC(s), and SSN(s)), Number Pool Block SV Type (if supported by the Block Holder SOA), Alternative SPID (if supported by the Block Holder SOA), Last Alternative SPID (if supported by the Block Holder SOA), Alt-End User Location Value (if supported by the Block Holder SOA), Alt-End User Location Type (if supported by the Block Holder SOA), and Alt-Billing ID (if supported by the Block Holder SOA), Voice URI (if supported by the Block Holder SOA) MMS URI (if supported by the Block Holder SOA), and SMS URI (if supported by the Block Holder SOA) for a 1K Block as stored in the NPAC SMS (Previously B-320, reference NANC 399)

RR3-158 Modification of Number Pool Block Holder Information – Rejected from LSMS

NPAC SMS shall reject a request to modify a Block by a Service Provider via the NPAC SMS-to-Local SMS Interface, and will return an error message to the LSMS (Previously B-325)

RR3-159 Modification of Number Pooling Block Holder Information – SPID Validation

NPAC SMS shall allow a Service Provider via the SOA-to-NPAC SMS Interface or Service Provider via the NPAC SOA Low-tech Interface, to modify Block data for Blocks where the Block Holder SPID matches the Service Provider making the request (Previously B-330)

RR3-160 Modification of Number Pooling Block Holder Information – Selection Criteria

NPAC SMS shall allow a Service Provider via the SOA-to-NPAC SMS Interface, to modify Block data by specifying either Block ID (in CMIP or XML), or NPA-NXX-X value and status (in CMIP), or NPA-NXX-X value (in XML), in the request (Previously B-332)

RR3-161 Modification of Number Pooling Block Holder Information – Current status and Failed SP List

NPAC SMS shall reject and issue an error message to NPAC personnel, Service Provider via the SOA-to-NPAC SMS Interface, or Service Provider via the NPAC SOA Low-tech Interface, when modifying block holder data, for a 1K Block as stored in the NPAC SMS, and the Block's current status is not active, or the Block has at least one Service Provider in the Failed SP List (Previously B-335)

RR3-700 Modify Number Pool Block – DPC-SSN Field-level Data Validation

NPAC SMS shall perform field-level data validations to ensure that the values for the following input data, if supplied, is valid according to the Service Provider DPC-SSN source data, when Modifying Number Pool Blocks via the SOA Low-Tech Interface or NPAC Administrative Interface: (previously NANC 427, Req 6 6)

- Class DPC
- Class SSN
- LIDB DPC
- LIDB SSN
- CNAM DPC
- CNAM SSN
- ISVM DPC
- ISVM SSN
- WSMSC DPC
- WSMSC SSN

RR3-701 Modify Number Pool Block – Validation of DPC-SSNs for Number Pool Block Modifies

NPAC shall reject New Service Provider Number Pool Block Modify requests from the SOA Low-Tech Interface or NPAC Administrative Interface if a DPC-SSN is specified and a valid DPC-SSN reference does not exist in the Service Provider DPC source data (previously NANC 427, Req 6 7)

RR3-756 Number Pool Block Holder Information – Service Provider Tunable Value of TRUE for Pseudo-LRN Request

NPAC SMS shall accept a block modify request for a pseudo-LRN record from a Service Provider SOA only when the NPAC Customer SOA Pseudo-LRN Indicator is set to TRUE (previously NANC 442, Req 73)

RR3-162 Modification of Number Pooling Block Holder Information – Sending Status Update

NPAC SMS shall, upon processing a valid request to modify a Block, update the status of the Block, at the start of the broadcast of a Block modification to the Local SMSs, from an active status to a sending status (Previously B-340)

RR3-163 Modification of Number Pooling Block Holder Information – Broadcast of Block Data

NPAC SMS shall, upon successfully modifying a Block and setting the Block's status to sending, broadcast a modification of a Block to Local SMSs, via the NPAC SMS-to-Local SMS Interface (Previously B-350)

RR3-164 Modification of Number Pooling Block Holder Information – Modify Broadcast Complete Timestamp Update

NPAC SMS shall update the *Modify Broadcast Complete Timestamp* of the Block upon completion of the broadcast, and the FIRST successful response, for a Local SMS (Previously B-355)

RR3-165 Modification of Number Pooling Block Holder Information –Status Update

NPAC SMS shall update the *status* of the Block upon completion of the Modification broadcast, and a response from ALL Local SMSs, or retries are exhausted, as defined in RR3-137 1 and RR3-137 3 (Previously B-360)

RR3-166 Modification of Number Pooling Block Holder Information – Failed SP List Update

NPAC SMS shall update the *Block Failed SP List* upon completion of the broadcast, and a response from ALL Local SMSs, or retries are exhausted, as defined in RR3-138 1, and 3-138 2 (Previously B-370)

RR3-167 Modification of Number Pooling Block Holder Information – Creation of Old Block

DELETED

RR3-168 Modification of Number Pooling Block Holder Information – Old Block No Broadcast

DELETED

RR3-757 Modify Number Pool Block – Send Notification of Modification of Pseudo-LRN Record

NPAC SMS shall send a notification to the current Service Provider when a Number Pool Block is set to active upon modification of a Number Pool Block of a pseudo-LRN record only if the NPAC Customer SOA Pseudo-LRN Notification Indicator is set to TRUE, and the SOA Origination Flag is set to TRUE (previously NANC 442, Req 74)

3.13.5 Block Holder, Deletion

RR3-169 Deletion of Number Pool Block Holder Information – NPAC

NPAC SMS shall not allow NPAC Personnel to request a delete of a Block in the NPAC SMS

Note: This is initiated at the NPA-NXX-X level, and is part of a multi-step “cascading delete” process (Previously B-400)

RR3-170 Deletion of Number Pool Block Holder Information – SOA

NPAC SMS shall reject a request to delete a Block by a Service Provider via the SOA-to-NPAC SMS interface, and will return an error message to the SOA (Previously B-410)

RR3-171 Deletion of Number Pool Block Holder Information – Rejected from LSMS

NPAC SMS shall reject a request to delete a Block by a Service Provider via the NPAC SMS-to-Local SMS Interface, and will return an error message to the LSMS (Previously B-412)

RR3-172 Deletion of Number Pool Block Holder Information – LTI

NPAC SMS shall not allow Service Provider Personnel to request a delete of a Block in the NPAC SMS via the NPAC SOA Low-tech Interface (Previously B-415)

RR3-173 Deletion of Number Pooling NPA-NXX-X Holder Information – Sending Status Update to Block

NPAC SMS shall, upon processing a valid request to delete an NPA-NXX-X, update the status of the Block at the start of the broadcast to the Local SMSs, from an active status to a sending status (Previously B-430)

RR3-174 Deletion of Number Pool NPA-NXX-X Holder Information – Broadcast of Block Data

NPAC SMS shall, upon setting the Block's status to sending, broadcast a delete of a Block, to LSMSs, via the NPAC SMS-to-Local SMS Interface (Previously B-440)

RR3-175 Deletion of Number Pooling Block Holder Information – Disconnect Complete Timestamp Update

NPAC SMS shall update the *Disconnect Complete Timestamp* of the Block upon completion of the broadcast, and the FIRST successful response, for a Local SMS (Previously B-445)

RR3-176 Deletion of Number Pooling NPA-NXX-X Holder Information – Status Update to Block

NPAC SMS shall update the *status* of the Block upon completion of the Deletion broadcast, and a response from ALL Local SMSs, or retries are exhausted, as defined in RR3-137 1 and RR3-137 4 (Previously B-450)

RR3-177 Deletion of Number Pooling NPA-NXX-X Holder Information – Failed SP List Update

NPAC SMS shall update the *Block Failed SP List* upon completion of the broadcast, and a response from ALL Local SMSs, or retries are exhausted, as defined in RR3-138 1, and RR3-138 2 (Previously B-480)

RR3-178 Deletion of Number Pooling NPA-NXX-X Holder Information – Creation of Old Block

DELETED

RR3-179 Deletion of Number Pooling NPA-NXX-X Holder Information – Old Block No Broadcast

DELETED

RR3-758 Deletion of Number Pool Block Holder Information – Send Notification of Disconnect of Pseudo-LRN Record

NPAC SMS shall send a notification to the current Service Provider when a Number Pool Block is set to old upon deletion of a Number Pool Block of a pseudo-LRN record only if the NPAC Customer SOA Pseudo-LRN Notification Indicator is set to TRUE and the SOA Origination Flag is set to TRUE (previously NANC 442, Req 12)

3.13.6 Block Holder, Query

RR3-180 Query of Number Pool Block Holder Information – NPAC Personnel

NPAC SMS shall allow NPAC Personnel to query the block holder information for all data as listed in the Block Holder Information Data Model, for a 1K Block as stored in the NPAC SMS (Previously B-555)

RR3-181 Query of Number Pool Block Holder Information – Service Provider Personnel

NPAC SMS shall allow a Service Provider SOA via the SOA-to-NPAC SMS Interface, Service Provider Local SMS via the NPAC SMS-to-Local SMS Interface, or Service Provider via the NPAC SOA Low-tech Interface, to query Block Holder Information (Previously B-556)

RR3-182 Query of Number Pool Filtered Block Holder Information – Query Block

NPAC SMS shall return, to the NPAC Personnel or requesting Service Provider, all Block data supported by the requestor that match the query selection criteria (Previously B-557)

RR3-759 Query of Number Pool Block Holder Information for Pseudo-LRN – Service Provider Personnel – SOA Interface

NPAC SMS shall allow a Service Provider SOA via the SOA-to-NPAC SMS Interface, to query Block Holder Information for a pseudo-LRN record, if the value in the requesting Service Provider's SOA Pseudo-LRN Indicator is set to TRUE, and the New Service Provider value in the pseudo-LRN record is contained in the requesting Service Provider's Pseudo-LRN Accepted SPID List (previously NANC 442, Req 14)

RR3-760 Query of Number Pool Block Holder Information for Pseudo-LRN – Service Provider Personnel – LSMS Interface

NPAC SMS shall allow a Service Provider Local SMS via the NPAC SMS-to-Local SMS Interface, to query Block Holder Information for a pseudo-LRN record, if the value in the requesting Service Provider's LSMS Pseudo-LRN Indicator is set to TRUE, and the New Service Provider value in the pseudo-LRN record is contained in the requesting Service Provider's Pseudo-LRN Accepted SPID List (previously NANC 442, Req 52)

RR3-761 Query of Number Pool Block Holder Information for Pseudo-LRN – Service Provider Personnel – LTI

NPAC SMS shall allow a Service Provider via the NPAC SOA Low-tech Interface, to query Block Holder Information for a pseudo-LRN record, if the Service Provider Low-Tech Interface Pseudo-LRN Support Flag Indicator is TRUE (previously NANC 442, Req 15)

3.13.7 Block Holder, Default Routing Restoration

RR3-183 Number Pool Block Holder Information Use of Number Pool Default Routing Information – Existing Block

The NPAC SMS shall use the default routing restoration information in the Number Pooling Block Holder Information as the block holder default routing, when a ported pooled number is disconnected or port to original port is activated, and returns the TN(s) to the block, once the Block exists, except for Old with or without a Failed SP List (Previously B-570)

RR3-184 Number Pool Block Holder Information Use of Number Pool Notification of TN Re-assignment – During De-Pooling

The NPAC SMS shall send a notification to the Code Holder, and suppress the notification to the Block Holder, when a ported pooled number is disconnected, for TN(s) in the block, when the Block is being de-pooled, and the most recent block contains a status of Old, with a Failed SP List (Previously B-571)

Note: The notifications characteristics for a disconnect of a ported pooled number, during de-pooling of a Block, with a Block that contains a status of Old with a Failed SP List, is additional functionality that defines Code Holder responsibility and notification messages. In essence, even though the de-pooled Block (i.e., contains a status of Old with a Failed SP List) is post-effective date, it has the behavior of a Block that has NOT been pooled and is in a *pre-effective date* stage. Also, the customer disconnect date notification is going to the Code Holder, but the TN cannot be re-assigned in their inventory

3.13.8 Block Holder, Re-Send

RR3-185 Re-Send of Number Pool Block Holder Information – Filters for Blocks

NPAC SMS shall apply NPA-NXX Filters to Block re-sends to the Local SMS(s) (Previously B-574)

NPAC Data Administration

RR3-186.1 Re-Send of Number Pooling Block Holder Information – NPAC Personnel OpGUI Single Block

NPAC SMS shall allow NPAC Personnel to re-send Block Information, one Block at a time, via the NPAC Administrative Interface (B-575 1)

RR3-186.2 Re-Send of Number Pooling Block Holder Information – NPAC Personnel OpGUI One or All Service Providers

NPAC SMS shall allow NPAC Personnel to re-send Block Information, to a single Service Provider or all Service Providers in the Block Failed SP List, via the NPAC Administrative Interface (Previously B-575 2)

RR3-187 Re-Send of Number Pooling Block Holder Information – Use of EDR Indicator for Re-Send data

DELETED

RR3-188 Re-Send of Number Pooling Block Holder Information – Re-Send to Local SMS

NPAC SMS shall re-send Block Information to a Local SMS, by re-sending the previously failed Block Object, via the NPAC SMS-to-Local SMS Interface (Previously B-577)

RR3-189 Re-Send of Number Pooling Block Holder Information – Re-Send to non-EDR Local SMS

DELETED

RR3-190 Re-Send of Number Pooling Block Holder Information – Failed Block Status Set to Sending

NPAC SMS shall update the *status* of the failed Block, specified in the re-send request, at the start of the re-send to the Local SMSs, from a failed status to a sending status (Previously B-580)

RR3-191 Re-Send of Number Pooling Block Holder Information – Partial Failure Block Status Set to Sending

NPAC SMS shall update the *status* of the partial failure Block, specified in the re-send request, at the start of the re-send to the Local SMSs, from a partial failure status to a sending status (Previously B-590)

RR3-192 Re-Send of Number Pooling Block Holder Information – Sending Status Update to Active Block

NPAC SMS shall update the *status* of the active Block, with a Failed SP List, specified in the re-send request, at the start of the re-send to the Local SMSs, from an active status to a sending status (Previously B-600)

RR3-193 Re-Send of Number Pooling Block Holder Information – Sending Status Update to Old Block

NPAC SMS shall update the *status* of the old Block, with a Failed SP List, specified in the re-send request, at the start of the re-send to the Local SMSs, from an old status to a sending status (Previously B-610)

RR3-194 Re-Send of Number Pool Block Holder Information – Broadcast of Block Data

NPAC SMS shall, upon setting the Block's status to sending, broadcast a re-send of a Block, to LSMSs, via the NPAC SMS-to-Local SMS Interface (Previously B-620)

RR3-195 Re-Send of Number Pooling Block Holder Information – Update to Failed SP List

NPAC SMS shall update the *Block Failed SP List* of the Block and the *Subscription Version Failed SP List* of each Subscription Version with LNP Type of POOL, by removing the previously failed Local SMS, upon a successful re-send to a previously failed Local SMS (Previously B-630)

RR3-196 Re-Send of Number Pooling Block Holder Information –Status Update to Block after Re-Send

NPAC SMS shall update the *status* of the Block, specified in the re-send request for a Block Creation, Modification, or Deletion, at the completion of the re-send to the Local SMS, and a response from the Local SMS or if retries have been exhausted, from a sending status, as defined in RR3-137 1, RR3-137 2, RR3-137 3, and RR3-137 4 (Previously B-635)

RR3-197 Re-Send of Number Pooling Block Holder Information – Failed SP List Update

NPAC SMS shall update the *Block Failed SP List*, specified in the re-send request for a Block Creation, Modification, or Deletion, at the completion of the re-send to the Local SMS, and a response from the Local SMS or if retries have been exhausted, as defined in RR3-138 1, and RR3-138 2 (Previously B-636)

RR3-472 Number Pool Block Failed SP List – Exclusion of a Service Provider from Resend

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to request that a Service Provider be excluded from the Number Pool Block Failed SP List and associated Subscription Version Failed SP List when resending a number pool block, and not broadcast to the Service Provider that is excluded (previously NANC 300, Req 1)

RR3-473 Number Pool Block Failed SP List – Logging of an Excluded Service Provider

NPAC SMS shall log the following information when a Service Provider is excluded from the Failed SP List based on a request by NPAC Personnel via the NPAC Administrative Interface: date, time, excluded SPID, Blockholder SPID, NPA-NXX-X, Number Pool Block ID (previously NANC 300, Req 2)

3.14 Linked Action Replies

The following section defines tunable parameters that enable Linked Action Replies to be sent to Service Provider systems that support this functionality, during recovery. The actual Linked Reply functionality is discussed specifically within the Recovery section of this document. This section is a CMIP Interface specific concept and does not apply to the XML interface.

RR3-771 Linked Replies – CMIP Interface Only

NPAC SMS shall support Linked Replies in the CMIP Interface (Previously NANC 372, Req 3)

RR3-336 NPAC Customer SOA Linked Replies Indicator

NPAC SMS shall provide a mechanism to indicate whether a Service Provider supports receiving Service Provider, Network and Notification Recovery Responses as Linked Replies to their SOA, via the SOA-to-NPAC SMS Interface (previously NANC 187 Req 1)

RR3-337 NPAC Customer SOA Linked Replies Indicator – Default

NPAC SMS shall default the SOA Linked Replies Indicator to **FALSE** (previously NANC 187 Req 2)

RR3-338 NPAC Customer SOA Linked Replies Indicator – Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the SOA Linked Replies Indicator on the NPAC Customer record (previously NANC 187 Req 3)

RR3-339 NPAC Customer Local SMS Linked Replies Indicator

NPAC SMS shall provide a mechanism to indicate whether a Service Provider supports receiving Service Provider, Network, Subscription, and Notification Recovery Responses as Linked Replies to their Local SMS, via the NPAC SMS-to-Local SMS Interface (previously NANC 187 Req 6)

RR3-340 NPAC Customer Local SMS Linked Replies Indicator – Default

NPAC SMS shall default the Local SMS Linked Replies Indicator to **FALSE** (previously NANC 187 Req 7)

RR3-341 NPAC Customer Local SMS Linked Replies Indicator – Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Local SMS Linked Replies Indicator on the NPAC Customer record (previously NANC 187 Req 8)

RR3-342 Service Provider and Network Data Linked Replies Blocking Factor – Tunable Parameter

NPAC SMS shall provide a Service Provider and Network Data Linked Replies Blocking Factor tunable parameter which is defined as the number of objects in a single linked reply sent in response to a service provider or network data recovery request sent by a SOA/LSMS, when the SOA/LSMS supports Linked Replies (previously NANC 187 Req 12)

RR3-343 Service Provider and Network Data Linked Replies Blocking Factor – Tunable Parameter Default

NPAC SMS shall default the Service Provider and Network Data Linked Replies Blocking Factor tunable parameter to fifty (50) objects (previously NANC 187 Req 13)

RR3-344 Service Provider and Network Data Linked Replies Blocking Factor – Tunable Parameter Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider and Network Data Linked Replies Blocking Factor tunable parameter (previously NANC 187 Req 14)

RR3-345 Subscription Data Linked Replies Blocking Factor – Tunable Parameter

NPAC SMS shall provide a Subscription Data Linked Replies Blocking Factor tunable parameter which is defined as the number of objects in a single linked reply sent in response to a subscription data recovery request sent by a LSMS, when the LSMS supports Linked Replies (previously NANC 187 Req 17)

RR3-346 Subscription Data Linked Replies Blocking Factor – Tunable Parameter Default

NPAC SMS shall default the Subscription Data Linked Replies Blocking Factor tunable parameter to fifty (50) objects (previously NANC 187 Req 18)

RR3-347 Subscription Data Linked Replies Blocking Factor – Tunable Parameter Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Subscription Data Linked Replies Blocking Factor tunable parameter (previously NANC 187 Req 19)

RR3-348 Notification Data Linked Replies Blocking Factor – Tunable Parameter

NPAC SMS shall provide a Notification Data Linked Replies Blocking Factor tunable parameter which is defined as the number of notifications in a single linked reply sent in response to a notification data recovery request sent by a SOA/LSMS, when the SOA/LSMS supports Linked Replies (previously NANC 187 Req 21)

RR3-349 Notification Data Linked Replies Blocking Factor – Tunable Parameter Default

NPAC SMS shall default the Notification Data Linked Replies Blocking Factor tunable parameter to fifty (50) notifications (previously NANC 187 Req 22)

RR3-350 Notification Data Linked Replies Blocking Factor – Tunable Parameter Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Notification Data Linked Replies Blocking Factor tunable parameter (previously NANC 187 Req 23)

RR3-430 Number Pool Block Data Linked Replies Blocking Factor - Tunable Parameter

NPAC SMS shall provide a Number Pool Block Data Linked Replies Blocking Factor tunable parameter which is defined as the number of objects in a single linked reply sent in response to a number pool block data recovery request sent by a LSMS, when the LSMS supports Linked Replies (Previously related to NANC 187)

RR3-431 Number Pool Block Data Linked Replies Blocking Factor - Tunable Parameter Default

NPAC SMS shall default the Number Pool Block Data Linked Replies Blocking Factor tunable parameter to fifty (50) objects (Previously related to NANC 187)

RR3-432 Number Pool Block Data Linked Replies Blocking Factor - Tunable Parameter Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Number Pool Block Data Linked Replies Blocking Factor tunable parameter (Previously related to NANC 187)

RR3-351 Service Provider and Network Data Maximum Linked Recovered Objects – Tunable Parameter

NPAC SMS shall provide a Service Provider and Network Data Maximum Linked Recovered Objects tunable parameter which is defined as the maximum number of objects sent in response to service provider or network data recovery request sent by a SOA/LSMS, when the SOA/LSMS supports Linked Replies (previously NANC 187 Req 26)

RR3-352 Service Provider and Network Data Maximum Linked Recovered Objects – Tunable Parameter Default

NPAC SMS shall default the Service Provider and Network Data Maximum Linked Recovered Objects tunable parameter to ten thousand (10,000) objects (previously NANC 187 Req 27)

RR3-353 Service Provider and Network Data Maximum Linked Recovered Objects – Tunable Parameter Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider and Network Data Maximum Linked Recovered Objects tunable parameter (previously NANC 187 Req 28)

NPAC Data Administration

RR3-354 Subscription Data Maximum Linked Recovered Objects – Tunable Parameter

NPAC SMS shall provide a Subscription Data Maximum Linked Recovered Objects tunable parameter which is defined as the maximum number of objects sent in response to a subscription data recovery request sent by an LSMS, when the LSMS supports Linked Replies (previously NANC 187 Req 31)

RR3-355 Subscription Data Maximum Linked Recovered Objects – Tunable Parameter Default

NPAC SMS shall default the Subscription Data Maximum Linked Recovered Objects tunable parameter to ten thousand (10,000) objects (previously NANC 187 Req 32)

RR3-356 Subscription Data Maximum Linked Recovered Objects – Tunable Parameter Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Subscription Data Maximum Linked Recovered Objects tunable parameter (previously NANC 187 Req 33)

RR3-357 Notification Data Maximum Linked Recovered Notifications – Tunable Parameter

NPAC SMS shall provide a Notification Data Maximum Linked Recovered Notifications tunable parameter which is defined as the maximum number of notifications sent in response to a notification data recovery request sent by a SOA/LSMS, when the SOA/LSMS supports Linked Replies (previously NANC 187 Req 35)

RR3-358 Notification Data Maximum Linked Recovered Notifications – Tunable Parameter Default

NPAC SMS shall default the Notification Data Maximum Linked Recovered Notifications tunable parameter to two thousand (2,000) notifications (previously NANC 187 Req 36)

RR3-359 Notification Data Maximum Linked Recovered Notifications – Tunable Parameter Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Notification Data Maximum Linked Recovered Notifications tunable parameter (previously NANC 187 Req 37)

RR3-433 Number Pool Block Data Maximum Linked Recovered Objects - Tunable Parameter

NPAC SMS shall provide a Number Pool Block Data Maximum Linked Recovered Objects tunable parameter which is defined as the maximum number of objects sent in response to a number pool block recovery request sent by an LSMS, when the LSMS supports Linked Replies (Previously related to NANC 187)

RR3-434 Number Pool Block Data Maximum Linked Recovered Objects - Tunable Parameter Default

NPAC SMS shall default the Number Pool Block Data Maximum Linked Recovered Objects tunable parameter to ten thousand (10,000) objects (Previously related to NANC 187)

RR3-435 Number Pool Block Data Maximum Linked Recovered Objects - Tunable Parameter Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Number Pool Block Data Maximum Linked Recovered Objects tunable parameter (Previously related to NANC 187)

3.15GTT Validation Processing by the NPAC SMS

This section describes how the NPAC SMS performs a variety of GTT validation for Subscription Versions and Number Pool Blocks in an effort to support SS7 signaling guidelines for Local Number Portability. Some GTT validation occurs based on regional tunables that reflect inter-Service Provider service level agreements, while other validations occur globally regardless of any tunable setting.

3.15.1 Sub System Number (SSN) Edit Flag Indicator

The following section defines tunable parameters that allow the NPAC SMS to impose edits and prevent Subscription Version and Number Pool Block processing that contain GTT data that cannot be processed by certain Service Providers based on regional agreements. These indicators are set and applied regionally. This section also identifies how the NPAC SMS applies GTT validation to Subscription Version and Number Pool Block processing based on the indicator settings.

RR3-360 DPC/SSN Edits – CLASS SSN Edit Flag Indicator

NPAC SMS shall provide a CLASS SSN Edit Flag Indicator, which is defined as an indicator on whether or not CLASS DPC/SSN consistency edits will be enforced by the NPAC SMS, upon Subscription Version or Number Pool Block Creation, Modification, or mass update (previously NANC 291 Req 1)

RR3-361 DPC/SSN Edits – LIDB SSN Edit Flag Indicator

NPAC SMS shall provide a LIDB SSN Edit Flag Indicator, which is defined as an indicator on whether or not LIDB DPC/SSN consistency edits will be enforced by the NPAC SMS, upon Subscription Version or Number Pool Block Creation, Modification, or mass update (previously NANC 291 Req 2)

RR3-362 DPC/SSN Edits – CNAM SSN Edit Flag Indicator

NPAC SMS shall provide a CNAM SSN Edit Flag Indicator, which is defined as an indicator on whether or not CNAM DPC/SSN consistency edits will be enforced by the NPAC SMS, upon Subscription Version or Number Pool Block Creation, Modification, or mass update (previously NANC 291 Req 3)

RR3-363 DPC/SSN Edits – ISVM SSN Edit Flag Indicator

NPAC SMS shall provide a ISVM SSN Edit Flag Indicator, which is defined as an indicator on whether or not ISVM DPC/SSN consistency edits will be enforced by the NPAC SMS, upon Subscription Version or Number Pool Block Creation, Modification, or mass update (previously NANC 291 Req 4)

RR3-364 DPC/SSN Edits – WSMSC SSN Edit Flag Indicator

NPAC SMS shall provide a WSMSC SSN Edit Flag Indicator, which is defined as an indicator on whether or not WSMSC DPC/SSN consistency edits will be enforced by the NPAC SMS, upon Subscription Version or Number Pool Block Creation, Modification, or mass update (previously NANC 291 Req 5)

RR3-365 DPC/SSN Edits – CLASS SSN Edit Flag Indicator – OpGUI Modification

NPAC SMS shall allow the NPAC Personnel, via the NPAC Administrative Interface, to modify the CLASS SSN Edit Flag Indicator (previously NANC 291 Req 11)

RR3-366 DPC/SSN Edits – LIDB SSN Edit Flag Indicator – OpGUI Modification

NPAC SMS shall allow the NPAC Personnel, via the NPAC Administrative Interface, to modify the LIDB SSN Edit Flag Indicator (previously NANC 291 Req 12)

RR3-367 DPC/SSN Edits – CNAM SSN Edit Flag Indicator – OpGUI Modification

NPAC SMS shall allow the NPAC Personnel, via the NPAC Administrative Interface, to modify the CNAM SSN Edit Flag Indicator (previously NANC 291 Req 13)

RR3-368 DPC/SSN Edits – ISVM SSN Edit Flag Indicator – OpGUI Modification

NPAC SMS shall allow the NPAC Personnel, via the NPAC Administrative Interface, to modify the ISVM SSN Edit Flag Indicator (previously NANC 291 Req 14)

RR3-369 DPC/SSN Edits – WSMSC SSN Edit Flag Indicator – OpGUI Modification

NPAC SMS shall allow the NPAC Personnel, via the NPAC Administrative Interface, to modify the WSMSC SSN Edit Flag Indicator (previously NANC 291 Req 15)

RR3-370 DPC/SSN Edits – CLASS SSN Edit Flag Indicator Default

NPAC SMS shall default the CLASS SSN Edit Flag Indicator to **TRUE** (previously NANC 291 Req 16)

RR3-371 DPC/SSN Edits – LIDB SSN Edit Flag Indicator Default

NPAC SMS shall default the LIDB SSN Edit Flag Indicator to **TRUE** (previously NANC 291 Req 17)

RR3-372 DPC/SSN Edits – CNAM SSN Edit Flag Indicator Default

NPAC SMS shall default the CNAM SSN Edit Flag Indicator to **TRUE** (previously NANC 291 Req 18)

RR3-373 DPC/SSN Edits – ISVM SSN Edit Flag Indicator Default

NPAC SMS shall default the ISVM SSN Edit Flag Indicator to **TRUE** (previously NANC 291 Req 19)

RR3-374 DPC/SSN Edits – WSMSC SSN Edit Flag Indicator Default

NPAC SMS shall default the WSMSC SSN Edit Flag Indicator to **TRUE** (previously NANC 291 Req 20)

RR3-375 DPC/SSN Edits – CLASS SSN Rejection for Non-Zero Value

NPAC SMS shall, based on the CLASS SSN Edit Flag Indicator for CLASS service when the value is TRUE, reject a Subscription Version or Number Pool Block Creation, Modification of any data, Activation, or mass update of any data, when the CLASS Destination Point Code (DPC) for that specific service contains a value (network 001-255, cluster 000-255, member 000-255), and the corresponding CLASS Sub-System Number (SSN) is not a zero (000) value (previously NANC 291 Req 6)

RR3-376 DPC/SSN Edits – LIDB SSN Rejection for Non-Zero Value

NPAC SMS shall, based on the LIDB SSN Edit Flag Indicator for LIDB service when the value is TRUE, reject a Subscription Version or Number Pool Block Creation, Modification of any data, Activation, or mass update of any data, when the LIDB Destination Point Code (DPC) for that specific service contains a value (network 001-255, cluster 000-255, member 000-255), and the corresponding LIDB Sub-System Number (SSN) is not a zero (000) value (previously NANC 291 Req 7)

RR3-377 DPC/SSN Edits – CNAM SSN Rejection for Non-Zero Value

NPAC SMS shall, based on the CNAM SSN Edit Flag Indicator for CNAM service when the value is TRUE, reject a Subscription Version or Number Pool Block Creation, Modification of any data, Activation, or mass update of any data, when the CNAM Destination Point Code (DPC) for that specific service contains a value (network 001-255, cluster 000-255, member 000-255), and the corresponding CNAM Sub-System Number (SSN) is not a zero (000) value (previously NANC 291 Req 8)

RR3-378 DPC/SSN Edits – ISVM SSN Rejection for Non-Zero Value

NPAC SMS shall, based on the ISVM SSN Edit Flag Indicator for ISVM service when the value is TRUE, reject a Subscription Version or Number Pool Block Creation, Modification of any data, Activation, or mass update of any data, when the ISVM Destination Point Code (DPC) for that specific service contains a value (network 001-255, cluster 000-255, member 000-255), and the corresponding ISVM Sub-System Number (SSN) is not a zero (000) value (previously NANC 291 Req 9)

RR3-379 DPC/SSN Edits – WSMSC SSN Rejection for Non-Zero Value

NPAC SMS shall, based on the WSMSC SSN Edit Flag Indicator for WSMSC service when the value is TRUE, reject a Subscription Version or Number Pool Block Creation, Modification of any data, Activation, or mass update of any data, when the WSMSC Destination Point Code (DPC) for that specific service contains a value (network 001-255, cluster 000-255, member 000-255), and the corresponding WSMSC Sub-System Number (SSN) is not a zero (000) value (previously NANC 291 Req 10)

3.15.2 Global GTT Validations

The following section describes how the NPAC SMS validates GTT contained within Subscription Version and Number Pooling requests. These validations occur outside of any tunable setting on the NPAC SMS.

RR3-380 Subscription Version – Verify CLASS SSN when CLASS DPC is populated

NPAC SMS shall verify the CLASS Sub-System Number (SSN) contains a value between 000-255 when the corresponding CLASS Destination Point Code (DPC) is populated with values for network value between 001-255, for cluster value between 000-255, and for member value between 000-255, from the new Service Provider in a Subscription Version creation, modification, or mass update for an Inter-Service Provider Port or Intra-Service Provider Port (previously NANC 191 Req 1)

RR3-381 Subscription Version – Verify LIDB SSN when LIDB DPC is populated

NPAC SMS shall verify the LIDB Sub-System Number (SSN) contains a value between 000-255 when the corresponding LIDB Destination Point Code (DPC) is populated with values for network value between 001-255, for cluster value between 000-255, and for member value between 000-255, from the new Service Provider in a Subscription Version creation, modification, or mass update for an Inter-Service Provider Port or Intra-Service Provider Port (previously NANC 191 Req 2)

RR3-382 Subscription Version – Verify CNAM SSN when CNAM DPC is populated

NPAC SMS shall verify the CNAM Sub-System Number (SSN) contains a value between 000-255 when the corresponding CNAM Destination Point Code (DPC) is populated with values for network value between 001-255, for cluster value between 000-255, and for member value between 000-255, from the new Service Provider in a Subscription Version creation, modification, or mass update for an Inter-Service Provider Port or Intra-Service Provider Port (previously NANC 191 Req 3)

RR3-383 Subscription Version – Verify ISVM SSN when ISVM DPC is populated

NPAC SMS shall verify the ISVM Sub-System Number (SSN) contains a value between 000-255 when the corresponding ISVM Destination Point Code (DPC) is populated with values for network value between 001-255, for cluster value between 000-255, and for member value between 000-255, from the new Service Provider in a Subscription Version creation, modification, or mass update for an Inter-Service Provider Port or Intra-Service Provider Port (previously NANC 191 Req 4)

RR3-384 Subscription Version – Verify WSMSC SSN when WSMSC DPC is populated

NPAC SMS shall verify the WSMSC Sub-System Number (SSN) contains a value between 000-255 when the corresponding WSMSC Destination Point Code (DPC) is populated with values for network value between 001-255, for cluster value between 000-255, and for member value between 000-255, from the new Service Provider in a Subscription Version creation, modification, or mass update for an Inter-Service Provider Port or Intra-Service Provider Port (previously NANC 191 Req 5)

RR3-385 Subscription Version – Verify CLASS DPC when CLASS SSN is populated

NPAC SMS shall verify the CLASS Destination Point Code (DPC) contains values (network 001-255, cluster 000-255, member 000-255) when the corresponding CLASS Sub-System Number (SSN) is populated with a value (000-255), from the new Service Provider in a Subscription Version creation, modification, or mass update for an Inter-Service Provider Port or Intra-Service Provider Port (previously NANC 191 Req 6)

RR3-386 Subscription Version – Verify LIDB DPC when LIDB SSN is populated

NPAC SMS shall verify the LIDB Destination Point Code (DPC) contains values (network 001-255, cluster 000-255, member 000-255) when the corresponding LIDB Sub-System Number (SSN) is populated with a value (000-255), from the new Service Provider in a Subscription Version creation, modification, or mass update for an Inter-Service Provider Port or Intra-Service Provider Port (previously NANC 191 Req 7)

RR3-387 Subscription Version – Verify CNAM DPC when CNAM SSN is populated

NPAC SMS shall verify the CNAM Destination Point Code (DPC) contains values (network 001-255, cluster 000-255, member 000-255) when the corresponding CNAM Sub-System Number (SSN) is populated with a value (000-255), from the new Service Provider in a Subscription Version creation, modification, or mass update for an Inter-Service Provider Port or Intra-Service Provider Port (previously NANC 191 Req 8)

RR3-388 Subscription Version – Verify ISVM DPC when ISVM SSN is populated

NPAC SMS shall verify the ISVM Destination Point Code (DPC) contains values (network 001-255, cluster 000-255, member 000-255) when the corresponding ISVM Sub-System Number (SSN) is populated with a value (000-255), from the new Service Provider in a Subscription Version creation, modification, or mass update for an Inter-Service Provider Port or Intra-Service Provider Port (previously NANC 191 Req 9)

RR3-389 Subscription Version – Verify WSMSC DPC when WSMSC SSN is populated

NPAC SMS shall verify the WSMSC Destination Point Code (DPC) contains values (network 001-255, cluster 000-255, member 000-255) when the corresponding WSMSC Sub-System Number (SSN) is populated with a value (000-255), from the new Service Provider in a Subscription Version creation, modification, or mass update for an Inter-Service Provider Port or Intra-Service Provider Port (previously NANC 191 Req 10)

RR3-390 Number Pool Block – Verify CLASS SSN when CLASS DPC is populated

NPAC SMS shall verify the CLASS Sub-System Number (SSN) contains a value (000-255) when the corresponding CLASS Destination Point Code (DPC) is populated with values (network 001-255, cluster 000-255, member 000-255), from the Block Holder Service Provider in a Block creation, modification, or mass update for Number Pooling (previously NANC 191 Req 11)

RR3-391 Number Pool Block – Verify LIDB SSN when LIDB DPC is populated

NPAC SMS shall verify the LIDB Sub-System Number (SSN) contains a value (000-255) when the corresponding LIDB Destination Point Code (DPC) is populated with values (network 001-255, cluster 000-255, member 000-255), from the Block Holder Service Provider in a Block creation, modification, or mass update for Number Pooling (previously NANC 191 Req 12)

RR3-392 Number Pool Block – Verify CNAM SSN when CNAM DPC is populated

NPAC SMS shall verify the CNAM Sub-System Number (SSN) contains a value (000-255) when the corresponding CNAM Destination Point Code (DPC) is populated with values (network 001-255, cluster 000-255, member 000-255), from the Block Holder Service Provider in a Block creation, modification, or mass update for Number Pooling (previously NANC 191 Req 13)

RR3-393 Number Pool Block – Verify ISVM SSN when ISVM DPC is populated

NPAC SMS shall verify the ISVM Sub-System Number (SSN) contains a value (000-255) when the corresponding ISVM Destination Point Code (DPC) is populated with values (network 001-255, cluster 000-255, member 000-255), from the Block Holder Service Provider in a Block creation, modification, or mass update for Number Pooling (previously NANC 191 Req 14)

RR3-394 Number Pool Block – Verify WSMSC SSN when WSMSC DPC is populated

NPAC SMS shall verify the WSMSC Sub-System Number (SSN) contains a value (000-255) when the corresponding WSMSC Destination Point Code (DPC) is populated with values (network 001-255, cluster 000-255, member 000-255), from the Block Holder Service Provider in a Block creation, modification, or mass update for Number Pooling (previously NANC 191 Req 15)

RR3-395 Number Pool Block – Verify CLASS DPC when CLASS SSN is populated

NPAC SMS shall verify the CLASS Destination Point Code (DPC) contains values (network 001-255, cluster 000-255, member 000-255) when the corresponding CLASS Sub-System Number (SSN) is populated with a value (000-255), from the Block Holder Service Provider in a Block creation, modification, or mass update for Number Pooling (previously NANC 191 Req 16)

RR3-396 Number Pool Block – Verify LIDB DPC when LIDB SSN is populated

NPAC SMS shall verify the LIDB Destination Point Code (DPC) contains values (network 001-255, cluster 000-255, member 000-255) when the corresponding LIDB Sub-System Number (SSN) is populated with a value (000-255), from the Block Holder Service Provider in a Block creation, modification, or mass update for Number Pooling (previously NANC 191 Req 17)

RR3-397 Number Pool Block – Verify CNAM DPC when CNAM SSN is populated

NPAC SMS shall verify the CNAM Destination Point Code (DPC) contains values (network 001-255, cluster 000-255, member 000-255) when the corresponding CNAM Sub-System Number (SSN) is populated with a value (000-255), from the Block Holder Service Provider in a Block creation, modification, or mass update for Number Pooling (previously NANC 191 Req 18)

RR3-398 Number Pool Block – Verify ISVM DPC when ISVM SSN is populated

NPAC SMS shall verify the ISVM Destination Point Code (DPC) contains values (network 001-255, cluster 000-255, member 000-255) when the corresponding ISVM Sub-System Number (SSN) is populated with a value (000-255), from the Block Holder Service Provider in a Block creation, modification, or mass update for Number Pooling (previously NANC 191 Req 19)

RR3-399 Number Pool Block – Verify WSMSC DPC when WSMSC SSN is populated

NPAC SMS shall verify the WSMSC Destination Point Code (DPC) contains values (network 001-255, cluster 000-255, member 000-255) when the corresponding WSMSC Sub-System Number (SSN) is populated with a value (000-255), from the Block Holder Service Provider in a Block creation, modification, or mass update for Number Pooling (previously NANC 191 Req 20)

RR3-400 DPC/SSN Edits – CLASS validation failure

NPAC SMS shall send back an error to the requesting Service Provider if a Subscription Version or Number Pool Block DPC/SSN consistency check for CLASS fails validation (previously NANC 191 Req 21)

RR3-401 DPC/SSN Edits – LIDB validation failure

NPAC SMS shall send back an error to the requesting Service Provider if a Subscription Version or Number Pool Block DPC/SSN consistency check for LIDB fails validation (previously NANC 191 Req 22)

RR3-402 DPC/SSN Edits – CNAM validation failure

NPAC SMS shall send back an error to the requesting Service Provider if a Subscription Version or Number Pool Block DPC/SSN consistency check for CNAM fails validation (previously NANC 191 Req 23)

RR3-403 DPC/SSN Edits – ISVM validation failure

NPAC SMS shall send back an error to the requesting Service Provider if a Subscription Version or Number Pool Block DPC/SSN consistency check for ISVM fails validation (previously NANC 191 Req 24)

RR3-404 DPC/SSN Edits – WSMSC validation failure

NPAC SMS shall send back an error to the requesting Service Provider if a Subscription Version or Number Pool Block DPC/SSN consistency check for WSMSC fails validation (previously NANC 191 Req 25)

RR3-405 DPC/SSN Edits – CLASS DPC and SSN Required Data for Modification

NPAC SMS shall require values from the requesting Service Provider for both CLASS DPC and CLASS SSN to be sent to the NPAC SMS when modifying CLASS service for a Subscription Version or Number Pool Block, even if only one value is being modified (previously NANC 191 Req 26)

RR3-406 DPC/SSN Edits – LIDB DPC and SSN Required Data for Modification

NPAC SMS shall require values from the requesting Service Provider for both LIDB DPC and LIDB SSN to be sent to the NPAC SMS when modifying LIDB service for a Subscription Version or Number Pool Block, even if only one value is being modified (previously NANC 191 Req 27)

RR3-407 DPC/SSN Edits – CNAM DPC and SSN Required Data for Modification

NPAC SMS shall require values from the requesting Service Provider for both CNAM DPC and CNAM SSN to be sent to the NPAC SMS when modifying CNAM service for a Subscription Version or Number Pool Block, even if only one value is being modified (previously NANC 191 Req 28)

RR3-408 DPC/SSN Edits – ISVM DPC and SSN Required Data for Modification

NPAC SMS shall require values from the requesting Service Provider for both ISVM DPC and ISVM SSN to be sent to the NPAC SMS when modifying ISVM service for a Subscription Version or Number Pool Block, even if only one value is being modified (previously NANC 191 Req 29)

RR3-409 DPC/SSN Edits – WSMSC DPC and SSN Required Data for Modification

NPAC SMS shall require values from the requesting Service Provider for both WSMSC DPC and WSMSC SSN to be sent to the NPAC SMS when modifying WSMSC service for a Subscription Version or Number Pool Block, even if only one value is being modified (previously NANC 191 Req 30)

RR3-410 DPC/SSN Edits – CLASS DPC and SSN Required Data for Mass Update

NPAC SMS shall require values from the NPAC Personnel for the requesting Service Provider for both CLASS DPC and CLASS SSN to be provided when mass updating CLASS service for a Subscription Version or Number Pool Block, even if only one value is being modified (previously NANC 191 Req 31)

RR3-411 DPC/SSN Edits – LIDB DPC and SSN Required Data for Mass Update

NPAC SMS shall require values from the NPAC Personnel for the requesting Service Provider for both LIDB DPC and LIDB SSN to be provided when mass updating LIDB service for a Subscription Version or Number Pool Block, even if only one value is being modified (previously NANC 191 Req 32)

RR3-412 DPC/SSN Edits – CNAM DPC and SSN Required Data for Mass Update

NPAC SMS shall require values from the NPAC Personnel for the requesting Service Provider for both CNAM DPC and CNAM SSN to be provided when mass updating CNAM service for a Subscription Version or Number Pool Block, even if only one value is being modified (previously NANC 191 Req 33)

RR3-413 DPC/SSN Edits – ISVM DPC and SSN Required Data for Mass Update

NPAC SMS shall require values from the NPAC Personnel for the requesting Service Provider for both ISVM DPC and ISVM SSN to be provided when mass updating ISVM service for a Subscription Version or Number Pool Block, even if only one value is being modified (previously NANC 191 Req 34)

RR3-414 DPC/SSN Edits – WSMSC DPC and SSN Required Data for Mass Update

NPAC SMS shall require values from the NPAC Personnel for the requesting Service Provider for both WSMSC DPC and WSMSC SSN to be provided when mass updating WSMSC service for a Subscription Version or Number Pool Block, even if only one value is being modified (previously NANC 191 Req 35)

RR3-415 Subscription Version – Verify All Routing Data When Modifying Non-GTT Data

NPAC SMS shall when modifying non-GTT data, reject the modify request for any DPC/SSN value edit inconsistencies for CLASS, LIDB, CNAM, ISVM, or WSMSC, from the new/current Service Provider in a Subscription Version modification, or mass update for an Inter-Service Provider Port or Intra-Service Provider Port (previously NANC 191 Req 36)

RR3-416 Subscription Version – Verify All Routing Data When Modifying CLASS Data

NPAC SMS shall when modifying CLASS DPC or CLASS SSN, reject the modify request for any DPC/SSN value edit inconsistencies for LIDB, CNAM, ISVM, or WSMSC, from the new/current Service Provider in a Subscription Version modification, or mass update for an Inter-Service Provider Port or Intra-Service Provider Port (previously NANC 191 Req 37)

RR3-417 Subscription Version – Verify All Routing Data When Modifying LIDB Data

NPAC SMS shall when modifying LIDB DPC or LIDB SSN, reject the modify request for any DPC/SSN value edit inconsistencies for CLASS, CNAM, ISVM, or WSMSC, from the new/current Service Provider in a Subscription Version modification, or mass update for an Inter-Service Provider Port or Intra-Service Provider Port (previously NANC 191 Req 38)

RR3-418 Subscription Version – Verify All Routing Data When Modifying CNAM Data

NPAC SMS shall when modifying CNAM DPC or CNAM SSN, reject the modify request for any DPC/SSN value edit inconsistencies for CLASS, LIDB, ISVM, or WSMSC, from the new/current Service Provider in a Subscription Version modification, or mass update for an Inter-Service Provider Port or Intra-Service Provider Port (previously NANC 191 Req 39)

RR3-419 Subscription Version – Verify All Routing Data When Modifying ISVM Data

NPAC SMS shall when modifying ISVM DPC or ISVM SSN, reject the modify request for any DPC/SSN value edit inconsistencies for CLASS, LIDB, CNAM, or WSMSC, from the new/current Service Provider in a Subscription Version modification, or mass update for an Inter-Service Provider Port or Intra-Service Provider Port (previously NANC 191 Req 40)

RR3-420 Subscription Version – Verify All Routing Data When Modifying WSMSC Data

NPAC SMS shall when modifying WSMSC DPC or WSMSC SSN, reject the modify request for any DPC/SSN value edit inconsistencies for CLASS, LIDB, CNAM, or ISVM, from the new/current Service Provider in a Subscription Version modification, or mass update for an Inter-Service Provider Port or Intra-Service Provider Port (previously NANC 191 Req 41)

RR3-421 Number Pool Block – Verify All Routing Data When Modifying Non-GTT Data

NPAC SMS shall when modifying non-GTT data, reject the modify request for any DPC/SSN value edit inconsistencies for CLASS, LIDB, CNAM, ISVM, or WSMSC, from the new/current Service Provider in a Number Pool Block modification, or mass update for a Number Pool Block (previously NANC 191 Req 42)

RR3-422 Number Pool Block – Verify All Routing Data When Modifying CLASS Data

NPAC SMS shall when modifying CLASS DPC or CLASS SSN, reject the modify request for any DPC/SSN value edit inconsistencies for LIDB, CNAM, ISVM, or WSMSC, from the new/current Service Provider in a Number Pool Block modification, or mass update for a Number Pool Block (previously NANC 191 Req 43)

RR3-423 Number Pool Block – Verify All Routing Data When Modifying LIDB Data

NPAC SMS shall when modifying LIDB DPC or LIDB SSN, reject the modify request for any DPC/SSN value edit inconsistencies for CLASS, CNAM, ISVM, or WSMSC, from the new/current Service Provider in a Number Pool Block modification, or mass update for a Number Pool Block (previously NANC 191 Req 44)

RR3-424 Number Pool Block – Verify All Routing Data When Modifying CNAM Data

NPAC SMS shall when modifying CNAM DPC or CNAM SSN, reject the modify request for any DPC/SSN value edit inconsistencies for CLASS, LIDB, ISVM, or WSMSC, from the new/current Service Provider in a Number Pool Block modification, or mass update for a Number Pool Block (previously NANC 191 Req 45)

RR3-425 Number Pool Block – Verify All Routing Data When Modifying ISVM Data

NPAC SMS shall when modifying ISVM DPC or ISVM SSN, reject the modify request for any DPC/SSN value edit inconsistencies for CLASS, LIDB, CNAM, or WSMSC, from the new/current Service Provider in a Number Pool Block modification, or mass update for a Number Pool Block (previously NANC 191 Req 46)

RR3-426 Number Pool Block – Verify All Routing Data When Modifying WSMSC Data

NPAC SMS shall when modifying WSMSC DPC or WSMSC SSN, reject the modify request for any DPC/SSN value edit inconsistencies for CLASS, LIDB, CNAM, or ISVM, from the new/current Service Provider in a Number Pool Block modification, or mass update for a Number Pool Block (previously NANC 191 Req 47)

RR3-427 Subscription Version – Verify All Routing Data When Activating a Subscription Version

NPAC SMS shall when activating a Subscription Version, reject the activate request for any DPC/SSN value edit inconsistencies for CLASS, LIDB, CNAM, ISVM, or WSMSC, from the new Service Provider in an activation for an Inter-Service Provider Port or Intra-Service Provider Port (previously NANC 191 Req 48)

RR3-428 Number Pool Block – Verify All Routing Data When Activating a Number Pool Block

NPAC SMS shall when scheduling a Block Create Event or activating a Number Pool Block, reject the scheduling or activate request for any DPC/SSN value edit inconsistencies for CLASS, LIDB, CNAM, ISVM, or WSMSC, from the new Service Provider in scheduling or activation for a Number Pool Block (previously NANC 191 Req 49)

RR3-429 DPC/SSN Edits – Errors on DPC and SSN Required Data for Mass Update

NPAC SMS shall log an entry to be used for the mass update exception report when any of the required DPC/SSN data edits are violated when mass updating a Subscription Version or Number Pool Block, and continue processing the mass update request (previously NANC 191 Req 50)

Note: For example in a case where 2000 SVs are being mass updated and 100 encountered DPC/SSN edit errors, the NPAC will perform the mass update by updating the 1900 SVs that are valid, and logging the remaining 100 SVs to be picked up the mass update exception report

3.16 Low-Tech Interface DPC-SSN Validation Processing by the NPAC SMS

This section describes how the NPAC SMS performs DPC-SSN validation for Subscription Versions and Number Pool Blocks that are submitted via the Low-Tech Interface or NPAC Administrative Interface. This validation

NPAC Data Administration

occurs based on regional tunables. These edits ensure that values specified are valid according to the Service Provider DPC source data.

RR3-702 Regional LTI DPC-SSN Validation Indicator – Tunable Parameter

NPAC SMS shall provide a Regional LTI DPC-SSN Validation Indicator tunable parameter, which is defined as an indicator on whether or not LTI DPC-SSN validation capability will be supported by the NPAC SMS for a particular NPAC region. (previously NANC 427, Req 7)

RR3-703 Regional LTI DPC-SSN Validation Indicator – Tunable Parameter Default

NPAC SMS shall default the LTI DPC-SSN Validation Indicator tunable parameter to TRUE. (previously NANC 427, Req 8)

RR3-704 Regional LTI DPC-SSN Validation Indicator – Tunable Parameter Modification

NPAC SMS shall allow NPAC SMS Personnel, via the NPAC Administrative Interface, to modify the LTI DPC-SSN Validation Indicator tunable parameter. (previously NANC 427, Req 9)

RR3-705 DPC-SSN Entries Information Source for LTI or NPAC Personnel entries

NPAC SMS shall obtain DPC-SSN information from each Service Provider that will be making subscription version create and modify requests as the New Service Provider via the SOA Low-Tech Interface or NPAC Administrative Interface. (previously NANC 427, Req 1)

RR3-706 DPC-SSN Entries Information Maintenance

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to maintain the Service Provider DPC-SSN information. (previously NANC 427, Req 2)

RR3-707 DPC-SSN Entries Information – Multiple Entries

NPAC SMS shall allow multiple entries of DPC-SSN pair for each GTT Type (CLASS, LIDB, CNAM, ISVM, WSMSC). (previously NANC 427, Req 3)

3.17 Customer Onboarding

This section describes the Customer Onboarding feature. This feature fills a synchronization gap for service provider systems that are new to the XML interface. At startup, full BDD and delta BDD files for the new XML provider are utilized. While the delta BDD is being loaded in the new XML SOA or LSMS, messages destined to the provider would queue up and cause partial failures.

Customer Onboarding introduced a concept of placing a provider's SOA or LSMS system on *Hold*. While a system is on *Hold*, the NPAC still creates messages, but rather than sending messages they are immediately placed in a hold queue. While in the *Hold* status, providers are not placed on the failed list. For a new system synchronizing with the NPAC, this *Hold* status starts when the delta BDD is created and continues until they have successfully loaded the delta BDD and the system is ready to receive messages from the NPAC. At that time, the provider's system status will be changed from *Hold* to *Replay*. While in *Replay* status, all messages that are in the hold queue are sent to the provider in the order they were originally created. Any new messages created during this time are placed at the end of the hold queue. When the hold queue is empty, the provider's system status is changed to *Normal* and synchronization is complete.

RR3-773 Customer Onboarding – Onboarding Status

NPAC SMS shall support the following onboarding statuses for the service provider's SOA/LSMS: (previously Onboarding, Req 1)

- Normal
- Hold
- Replay

RR3-774 Customer Onboarding – Display Onboarding Status

NPAC Administrative Interface shall display the onboarding status for the service provider's SOA/LSMS to NPAC Personnel (previously Onboarding, Req 2)

RR3-775 Customer Onboarding – SOA Replay Notifications

NPAC SMS shall replay notifications in the same order in which they were generated for the service provider's SOA while it was on Hold (previously Onboarding, Req 3)

RR3-776 Customer Onboarding – LSMS Replay Downloads

NPAC SMS shall replay downloads in the same order in which they were generated for the service provider's LSMS while it was on Hold (previously Onboarding, Req 4)

RR3-777 Customer Onboarding – Default Onboarding Status for Existing Service Providers

NPAC SMS shall default the onboarding status to Normal for existing service providers (previously Onboarding, Req 5)

RR3-778 Customer Onboarding – Replay Completion

NPAC SMS shall set the onboarding status for the service provider's SOA/LSMS back to Normal after all the queued messages have been replayed (previously Onboarding, Req 6)

RR3-779 Customer Onboarding – On Hold – Failed List

NPAC SMS shall not add the service provider's LSMS to the subscription version or pooled block failed-SP List if the download was generated while the service provider's LSMS was on Hold (previously Onboarding, Req 7)

4. Service Provider Data Administration

4.1 Service Provider Data Administration and Management

Service Provider Data Administration functions allow NPAC personnel to receive and record data needed to identify authorized LNP Service Providers. The Service Provider data indicates the LNP Service Providers and includes location, contact name, security, routing, and network interface information.

Service Provider Administration supports functionality to manage Service Provider data. There can be only one instance of Service Provider data for a specific LNP Service Provider.

AR1-1 Service Provider ID

All NPAC Customers will obtain a unique Service Provider ID from a proper source.

4.1.1 User Functionality

R4-1 Create Service Providers

The NPAC SMS shall allow NPAC Personnel to add a Service Provider.

R4-2 Modify Service Providers

NPAC SMS shall allow modification of Service Provider data via the NPAC SMS-to-Local SMS interface or the SOA-to-NPAC SMS interface. Service Providers can only modify their own data. (Service Provider management from the SOA and LSMS applies only to the CMIP interface, not the XML interface).

R4-3 Delete Service Providers

NPAC SMS shall allow NPAC personnel to delete a Service Provider.

R4-4 View of Service Provider Data

NPAC SMS shall allow NPAC personnel to view Service Provider data.

R4-5.1 View List of Service Provider Subscriptions

NPAC SMS shall allow NPAC personnel to view a list of Subscription Versions associated with the Service Provider.

R4-5.2 Authorized Service Providers View Service Provider Data – CMIP Interface

NPAC SMS shall allow authorized Service Provider personnel to view their own Service Provider data via the SOA-to-NPAC SMS interface, the NPAC SMS-to-Local SMS interface, and the NPAC SOA Low-tech Interface.

Service Provider Data Administration

Note: Service Provider personnel are restricted from viewing other Service Provider's data via the CMIP Interface for the SOA-to-NPAC SMS interface, the NPAC SMS-to-Local SMS interface, and the NPAC SOA Low-tech Interface

RR4-20 Authorized Service Providers View Service Provider Data – XML Interface

NPAC SMS shall allow authorized Service Provider personnel to view their own Service Provider data (long-form version) and view other Service Provider data (short-form version) via the XML Interface for the SOA-to-NPAC SMS interface, and the NPAC SMS-to-Local SMS interface (Previously NANC 372, Req 4)

RX4-2 Authorized Service Providers Modify Their Own Data

NPAC SMS shall allow authorized Service Provider personnel to modify their own Service Provider data

RR4-4.1 Broadcast NPAC Customer Names

NPAC SMS shall broadcast all additions, modifications, and deletions of NPAC Customer names via the NPAC SMS-to-Local SMS interface and/or SOA-to-NPAC SMS interface

4.1.2 System Functionality

This section describes NPAC SMS functionality required to support the NPAC personnel requests described in the above section. The following specifies user requests and lists the NPAC SMS functionality needed to support those requests

4.1.2.1 Service Provider Data Creation

NPAC personnel can request that Service Provider data be created in the NPAC SMS. The functionality described below enables a new instance of Service Provider data for a Service Provider to be created, provided that no other Service Provider data exists for the Service Provider

R4-6 New Service Provider ID

NPAC SMS shall require the following to be entered to identify the Service Provider, when NPAC personnel are creating a new Service Provider:

Service Provider ID - the alphanumeric identifier of the Service Provider. This ID must be unique

R4-7.1 Examine for Duplicate Service Provider ID

NPAC SMS shall check to see if there is an existing Service Provider with the same Service Provider ID

R4-7.2 Error notification of Duplicate Service Provider

NPAC SMS shall inform the user that the Service Provider data already exists for the Service Provider, if it does exist, and that the new Service Provider data cannot be created

R4-8 Service Provider Data Elements

NPAC SMS shall require the following data if there is no existing Service Provider data: (reference NANC 399)

- 1 Service Provider name, address, phone number, and contact organization
- 2 NPAC customer type
- 3 Service Provider allowable functions (applies only to the CMIP interface, not the XML interface)

Service Provider Data Administration

- 4 Service Provider Network Address of NPAC SMS-to-Local SMS interface (applies only to the CMIP interface, not the XML interface)
- 5 Service Provider Network Address of SOA-to-NPAC SMS interface (applies only to the CMIP interface, not the XML interface)
- 6 Service Provider Security Contact Contact data is security data when Contact Type is “SE ”
- 7 Service Provider Repair contact name and phone number The default Service Provider Repair Contact and phone number shall be the same as the Service Provider contact and phone number, if the Service Provider Repair Contact information is left blank
- 8 Service Provider billing name, address, phone number, and billing contact for NPAC SMS billing The default for the Service Provider Billing data shall be the same as the Service Provider data, if the Service Provider Billing information is left blank
- 9 Service Provider Download Indicator
- 10 Service Provider Maximum Query
- 11 NPAC New Functionality Support
- 12 Port In Timer Type (can select Short or Long, cannot select Medium)
- 13 Port Out Timer Type (can select Short or Long, cannot select Medium)
- 14 Business Hour/Days (can select Short or Long, cannot select Medium)
- 15 NPAC Customer SOA NPA-NXX-X Indicator
- 16 NPAC Customer LSMS NPA-NXX-X Indicator
- 17 SOA Notification Priority for each SOA notification Separate values may be set for Status Attribute Value Change notifications based on whether the Service Provider is acting as the Old Service Provider or as the New Service Provider for the port as indicated in Appendix C, Table C-7 – SOA Notification Priority Tunables
- 18 TN Range Notification Indicator
- 19 No New SP Concurrence Notification Indicator
- 20 Service Provider Type
- 21 Service Provider Type SOA Indicator
- 22 Service Provider Type LSMS Indicator
- 23 Service Provider SOA SWIM Recovery Indicator (applies only to the CMIP interface, not the XML interface)
- 24 Service Provider LSMS SWIM Recovery Indicator (applies only to the CMIP interface, not the XML interface)
- 25 NPAC SMS to SOA Application Level Heartbeat Indicator
- 26 NPAC SMS-to-LSMS Application Level Heartbeat Indicator
- 27 SOA Action Application Level Errors Indicator (applies only to the CMIP interface, not the XML interface)
- 28 LSMS Action Application Level Errors Indicator (applies only to the CMIP interface, not the XML interface)
- 29 SOA Non-Action Application Level Errors Indicator (applies only to the CMIP interface, not the XML interface)
- 30 LSMS Non-Action Application Level Errors Indicator (applies only to the CMIP interface, not the XML interface)
- 31 SOA Notification Channel Service Provider Tunable (applies only to the CMIP interface, not the XML interface)
- 32 Subscription Version TN Attribute Flag Indicator (applies only to the CMIP interface, not the XML interface)

Service Provider Data Administration

- 33 Number Pool Block NPA-NXX-X Attribute Flag Indicator (applies only to the CMIP interface, not the XML interface)
- 34 Service Provider SOA Supports Cancel-Pending-to-Conflict Cause Code
- 35 Service Provider LSMS Supports Cancel-Pending-to-Conflict Cause Code
- 36 Service Provider SOA SV Query Indicator
- 37 Service Provider LSMS SV Query Indicator
- 38 NPAC Customer SOA SV Type Indicator
- 39 NPAC Customer SOA Alternative SPID Indicator
- 40 NPAC Customer LSMS SV Type Indicator
- 41 NPAC Customer LSMS Alternative SPID Indicator
- 42 Service Provider SOA SPID Recovery Indicator
- 43 Service Provider LSMS SPID Recovery Indicator
- 44 NPAC Customer SOA Alt-End User Location Value Indicator
- 45 NPAC Customer LSMS Alt-End User Location Value Indicator
- 46 NPAC Customer SOA Alt-End User Location Type Indicator
- 47 NPAC Customer LSMS Alt-End User Location Type Indicator
- 48 NPAC Customer SOA Alt-Billing ID Indicator
- 49 NPAC Customer LSMS Alt-Billing ID Indicator
- 50 NPAC Customer SOA Voice URI Indicator
- 51 NPAC Customer LSMS Voice URI Indicator
- 52 NPAC Customer SOA MMS URI Indicator
- 53 NPAC Customer LSMS MMS URI Indicator
- 54 NPAC Customer SOA SMS URI Indicator
- 55 NPAC Customer LSMS SMS URI Indicator
- 56 NPAC Customer SOA Last Alternative SPID Support Indicator
- 57 NPAC Customer LSMS Last Alternative SPID Support Indicator
- 58 Service Provider Medium Timers Support Indicator
- 59 NPAC Customer SOA Pseudo-LRN Indicator
- 60 NPAC Customer LSMS Pseudo-LRN Indicator
- 61 NPAC Customer SOA Pseudo-LRN Notification Indicator
- 62 NPAC Customer LTI Pseudo-LRN Indicator
- 63 Service Provider Network Address of NPAC SMS-to-Local SMS interface (applies only to the CMIP interface, not the XML interface)
- 64 Service Provider Network Address of SOA NPAC SMS interface (applies only to the CMIP interface, not the XML interface)
- 65 Service Provider XML Connection Address Primary of NPAC SMS-to-Local SMS interface (applies only to the XML interface, not the CMIP interface)

Service Provider Data Administration

- 66 Service Provider XML Connection Address Primary of SOA NPAC SMS interface (applies only to the XML interface, not the CMIP interface)
- 67 Service Provider XML Connection Address Secondary of NPAC SMS-to-Local SMS interface (applies only to the XML interface, not the CMIP interface)
- 68 Service Provider XML Connection Address Secondary of SOA NPAC SMS interface (applies only to the XML interface, not the CMIP interface)
- 69 SOA XML Extended Errors Indicator (applies only to the XML interface, not the CMIP interface)
- 70 LSMS XML Extended Errors Indicator (applies only to the XML interface, not the CMIP interface)
- 71 NPAC Customer SOA Sending Failed SV Query Indicator
- 72 NPAC Customer LSMS Sending Failed SV Query Indicator

The following data is optional:

- Service Provider Contact Type: SOA Contact, Local SMS, Web, Network Communications, Conflict Resolution, Operations, and User Administration Contact Address Information
- NPAC Customer Associated Service Provider Information

R4-9 Service Provider data validation

NPAC SMS shall validate that all required Service Provider data has been received, after the Service Provider data has been collected

R4-10 Notification of successful add for new Service Provider

NPAC SMS shall notify NPAC personnel upon successful creation of the new Service Provider

R4-11 Failure notification of Service Provider creation

NPAC SMS shall issue an appropriate error message upon unsuccessful creation of the new Service Provider

RR4-9 Service Provider Type SOA Indicator

NPAC SMS shall provide a Service Provider Type SOA Indicator tunable parameter, which defines whether a SOA supports the Service Provider Type attribute (previously NANC 357, Req 1)

RR4-10 Service Provider Type SOA Indicator Default

NPAC SMS shall default the Service Provider Type SOA Indicator tunable parameter to FALSE (previously NANC 357, Req 2)

RR4-11 Service Provider Type SOA Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider Type SOA Indicator tunable parameter (previously NANC 357, Req 3)

RR4-12 Service Provider Type LSMS Indicator

NPAC SMS shall provide a Service Provider Type LSMS Indicator tunable parameter which defines whether an LSMS supports the Service Provider Type attribute (previously NANC 357, Req 4)

Service Provider Data Administration

RR4-13 Service Provider Type LSMS Indicator Default

NPAC SMS shall default the Service Provider Type LSMS Indicator tunable parameter to FALSE (previously NANC 357, Req 5)

RR4-14 Service Provider Type LSMS Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider Type LSMS Indicator tunable parameter (previously NANC 357, Req 6)

RR4-15 Service Provider Type Attribute Modification Restriction

NPAC SMS shall only allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider Type attribute (previously NANC 357, Req 7)

4.1.2.2 Service Provider Data Modification

NPAC personnel and the SOA-to-NPAC SMS interface (CMIP only) and the NPAC-to-Local SMS interface (CMIP only) can request that Service Provider data be modified in the NPAC SMS. The functionality described below enables the user to modify data for the Service Provider

R4-13 Service Provider Key selection for modifying Service Provider data

NPAC SMS shall require one of the following data items to identify the Service Provider data to be modified:

Service Provider ID
or
Service Provider Name

The Service Provider ID is required over the SOA-to-NPAC SMS interface and the NPAC SMS-to-Local SMS interface

R4-14 Error notification of invalid Service Provider ID or Name during Modify

NPAC SMS shall issue an appropriate error message to the user if the Service Provider data to be modified does **not** exist

R4-15.1 Modify restrictions on Service Provider data - Service Providers

NPAC SMS shall allow Service Provider data to be modified or added to the Service Provider data listed in Table 3-3 NPAC Customer Contact Data Model and the OSI Address and Internet Address information in [Table 3-5 NPAC Customer Associated Service Provider Data Model](#) ~~Table 3-4 NPAC Customer Network Address Data Model~~

R4-15.2 Modify restrictions on Service Provider data - NPAC Operations Personnel

NPAC SMS shall allow NPAC Operations personnel to modify the data in

| | | | |
|--|-------------------|-------------------|---|
| Notification BDD Timer Type Business Hours Support Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports Timer Type and Business Hours in a Notification BDD File. The default value is False. |
| NPAC Customer SOA Pseudo LRN Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports Pseudo LRN information from the SOA to the NPAC SMS. The |

Service Provider Data Administration

| | | | |
|--|----------|----------|---|
| | | | <p><u>Pseudo LRN is the ability to specify an LRN value of “000-000-0000”</u></p> <p><u>The default value is False</u></p> |
| <u>NPAC Customer LSMS Pseudo LRN Indicator</u> | <u>B</u> | <u>√</u> | <p><u>A Boolean that indicates whether the NPAC Customer supports Pseudo LRN information from the NPAC SMS to the LSMS. The Pseudo LRN is the ability to receive an LRN value of “000-000-0000” in an SV or NPB.</u></p> <p><u>The default value is False</u></p> |
| <u>NPAC Customer SOA Pseudo LRN Notification Indicator</u> | <u>B</u> | <u>√</u> | <p><u>A Boolean that indicates whether the NPAC Customer supports Pseudo LRN notifications to the SOA.</u></p> <p><u>The default value is False</u></p> |
| <u>NPAC Customer LTI Pseudo LRN Indicator</u> | <u>B</u> | <u>√</u> | <p><u>A Boolean that indicates whether the NPAC Customer supports Pseudo LRN information from/to the LTI.</u></p> <p><u>The default value is False</u></p> |
| <u>NPAC Customer SOA Force Pseudo LRN BDD Indicator</u> | <u>B</u> | <u>√</u> | <p><u>A Boolean that indicates whether the NPAC Customer supports forcing Pseudo LRN information into the SOA BDD even if the SOA Indicator is set to False.</u></p> <p><u>The default value is False</u></p> |
| <u>NPAC Customer LSMS Force Pseudo LRN BDD Indicator</u> | <u>B</u> | <u>√</u> | <p><u>A Boolean that indicates whether the NPAC Customer supports forcing Pseudo LRN information into the LSMS BDD even if the LSMS Indicator is set to False.</u></p> <p><u>The default value is False</u></p> |
| <u>Service Provider SOA Supports NPA-NXX Modification Indicator</u> | <u>B</u> | <u>√</u> | <p><u>A Boolean that indicates whether the NPAC Customer supports SPID NPA-NXX Modification from the SOA to the NPAC SMS (only applies to the CMIP interface, not the XML interface).</u></p> <p><u>The default value is False</u></p> |
| <u>Service Provider LSMS Supports NPA-NXX Modification Indicator</u> | <u>B</u> | <u>√</u> | <p><u>A Boolean that indicates whether the NPAC Customer supports NPA-NXX Modification from the NPAC SMS to the LSMS (only applies to the CMIP interface, not the XML interface).</u></p> <p><u>The default value is False</u></p> |
| <u>SOA XML Extended Errors Indicator</u> | <u>B</u> | <u>√</u> | <p><u>A Service Provider Boolean that defines whether the NPAC Customer supports XML Extended Errors across the SOA Interface.</u></p> |

Service Provider Data Administration

| | | | |
|--|---|---|--|
| | | | (only applies to the XML interface, not the CMIP interface). The default is FALSE. |
| LSMS XML Extended Errors Indicator | B | √ | A Service Provider Boolean that defines whether the NPAC Customer supports XML Extended Errors across the LSMS Interface (only applies to the XML interface, not the CMIP interface). The default is FALSE. |
| NPAC Customer SOA Last Activity Timestamp BDD Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports the Last Activity Timestamp in the SOA BDD. The default value is False. |
| NPAC Customer LSMS Last Activity Timestamp BDD Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports Last Activity Timestamp in the LSMS BDD. The default value is False. |
| Origination Timestamp | T | | A timestamp when a request or reply is created (as distinguished from delivery). Each request or reply sent over the XML interface must have an Origination Timestamp regardless of the system that originates the message. This timestamp should contain milliseconds accuracy. |
| Activity Timestamp | T | | A timestamp the NPAC maintains on each object in the database to retain the “Origination Timestamp” for the last update made to a record. The local system should also maintain this timestamp to capture the “Origination Timestamp” for the last update made for data received from the NPAC. This timestamp should contain milliseconds accuracy. |
| NPAC Customer SOA Sending Failed SV Query Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports Sending and Failed SVs in a Query Reply to the SOA. The default value is False. |
| NPAC Customer LSMS Sending Failed SV Query Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports Sending and Failed SVs in a Query Reply to the LSMS. The default value is False. |

Table 3-2 NPAC Customer Data Model Table 3-2 NPAC Customer Data Model, and Table 3-4 NPAC Customer Network Address Data Model, with the exception of the NPAC Customer ID

Service Provider Data Administration

R4-16 Re-validation of Service Provider data after Modify

NPAC SMS shall revalidate that all required Service Provider data is present when a user attempts to submit modified Service Provider data

R4-17 Modify Validation Error Message

NPAC SMS shall issue an appropriate error message to the user if the Service Provider data fails validation on a modify

4.1.2.3 Delete Service Provider Data

NPAC personnel can request that the Service Provider data be deleted. Deleted Service Provider data will be written to a history file. The functionality described below enables a user to delete data for the Service Provider

R4-20 Service Provider key for delete

NPAC SMS shall require the Service Provider ID and/or Service Provider name from the user to identify the Service Provider data to be deleted

R4-21 Error Message for Delete key search

NPAC SMS shall generate an error message and send it to the request originator, if the Service Provider data does not exist, or if it has already been deleted and exists only in a history file. NPAC SMS will not proceed further with the deletion request

R4-22.1 No Subscription Versions during Service Provider Delete

NPAC SMS shall perform the deletion of the Service Provider data, notify the user that the deletion request was successful, if there are no affected Subscription Versions, and write the Service Provider data to a history file

R4-22.2 Subscription during Service Provider Delete

NPAC SMS shall notify the user that the request to delete the Service Provider data cannot be completed until the affected individual Subscription Versions are modified, if affected Subscription Versions are found

R4-22.3 Service Provider subscription restrictions during Network Data Delete.

NPAC SMS shall determine if there are any Subscription Versions being affected by the NPA-NXX and/or LRN data being deleted

4.1.3 Service Provider Queries

The query functionality discussed in this section will give users the ability to view Service Provider and Subscription data. A user may not be able to modify a particular data item because they do not have the proper security permissions, therefore the data is made available via NPAC SMS for read-only purposes

4.1.3.1 User Functionality

R4-24.1 Display of Service Provider ID and related subscription data

NPAC SMS shall allow NPAC personnel to view all Subscription Versions associated with a Service Provider ID and/or Service Provider Name

R4-24.2 Display of LRN and related subscription data

NPAC SMS shall allow NPAC personnel to view all Subscription Versions associated with an LRN

R4-24.3 Display of NPA-NXX and related subscription data

NPAC SMS shall allow NPAC personnel to view all Subscription Versions associated with an NPA-NXX

4.1.3.2 System Functionality

The following specifies NPAC SMS functionality needed to support the user requests described above

R4-25 Service Provider as Key for queries

NPAC SMS shall require the Service Provider ID and/or the Service Provider Name for queries regarding Service Provider data

R4-26.1 Error message for unknown Service Provider during a query

NPAC SMS shall provide the request originator with a message indicating that there was no data in the NPAC SMS that matched the search keys for a Service Provider query, if no match was found

R4-26.2 Results returned to Service Provider during a query

NPAC SMS shall return all Service Provider data associated with the Service Provider ID and/or Service Provider Name, as listed in Tables 3-2, 3-3, 3-4, and 3-5, if the Service Provider data matches the query criteria. Service Providers are only allowed to query their own data

R4-27 Service Provider Query Types

NPAC SMS shall receive the Service Provider ID, a request to view subscription data, and optionally the subscription data status types to be returned (e.g., active only, active or pending) for queries regarding subscription data for a specific Service Provider

R4-28 Service Provider Information Message during query

NPAC SMS shall provide the request originator with a message indicating that there was no data in NPAC SMS that matched the search keys, if NPAC SMS does not have subscription data as specified by the request originator

RR4-16 Service Provider Data Information Service Provider Query – Support for Service Provider Type Data

NPAC SMS shall apply the Service Provider Type tunable support of the requesting Service Provider, in a query of Service Provider data (previously NANC 357, Req 9)

4.1.4 Service Provider Accepted SPID List

Pseudo-LRN functionality allows a Service Provider to specify the list of SPID (including their own) that they wish to receive pseudo-LRN records in a download from the NPAC SMS

Service Provider Data Administration

RR4-17 Add SPID to Pseudo-LRN Accepted SPID List by NPAC Personnel on behalf of a Service Provider

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, on behalf of a Service Provider that supports pseudo-LRN records, to add a SPID to the Pseudo-LRN Accepted SPID List for a given Service Provider, which results in the Service Provider receiving broadcasts of Pseudo-LRN information, in subscription versions and Number Pool Blocks (previously NANC 442, Req 22)

NOTE: Accepted SPID (receives the data) is the opposite of a Filtered SPID (does not receive the data)

NOTE: If the Service Provider has selected one or more Pseudo-LRN Accepted SPIDs (including own SPID), then only those pseudo-LRN records for those SPID(s) will be sent (including own SPID) If the Service Provider has not selected any Pseudo-LRN Accepted SPIDs, then all pseudo-LRN broadcasts will be sent if the Local SMS supports pseudo-LRN records

RR4-18 Delete SPID from Pseudo-LRN Accepted SPID List by NPAC Personnel on behalf of a Service Provider

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, on behalf of a Service Provider that supports pseudo-LRN records, to delete a SPID from the Pseudo-LRN Accepted SPID List for a given Service Provider (previously NANC 442, Req 23)

RR4-19 Query SPID from Pseudo-LRN Accepted SPID List by NPAC Personnel on behalf of a Service Provider

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to query the Pseudo-LRN Accepted SPID List for a given Service Provider (previously NANC 442, Req 24)

4.2 Additional Requirements

RN4-1 Service Provider Network Data Addition/Deletion

NPAC SMS shall allow Service Providers to add/delete the NPA-NXX and/or LRN data via the NPAC SMS-to-Local SMS interface and SOA-to-NPAC SMS interface provided the changes do not cause mass updates to the Subscription Versions (LRN and NPA-NXX management from the LSMS applies only to the CMIP interface, not the XML interface)

RR4-1 Removal of Service Provider with Respect to LRNs

NPAC SMS shall allow removal of a Service Provider by NPAC personnel only if all associated LRNs are removed, and no Subscription Versions are associated with the LRN

RR4-2 Removal of Service Provider with Respect to NPA-NXXs

NPAC SMS shall allow removal of a Service Provider by NPAC personnel only if all associated NPA-NXXs are removed, and no Subscription Versions are associated with the NPA-NXX

RR4-3.1 Removal of NPA-NXX – Subscription Version Check

NPAC SMS shall allow removal of an NPA-NXX by NPAC personnel only if no Subscription Versions, except for Old without a Failed SP List or Canceled Subscription Versions, exist for the NPA-NXX

Service Provider Data Administration

RR4-3.2 Removal of NPA-NXX – NPA-NXX-X Check

NPAC SMS shall allow the removal of an NPA-NXX by NPAC personnel only if Number Pooling NPA-NXX-X Information, does not exist for the NPA-NXX

RR4-4.2.1 Removal of LRN – Subscription Version Check

NPAC SMS shall allow the removal of an LRN by NPAC personnel only if no Subscription Versions, except for Old without a Failed SP List or Canceled Subscription Versions, exist and use the LRN

RR4-4.2.2 Removal of LRN – Block Check

NPAC SMS shall allow the removal of an LRN by NPAC personnel only if Number Pooling Block Information, except for Old with NO Failed SP List, do not exist and do not use the LRN

RR4-5 Duplicate NPA-NXX Validation

NPAC SMS shall validate upon request to add an NPA-NXX for a service provider that the NPA-NXX does not exist for any service provider in the region

RR4-6 Duplicate NPA-NXX Validation – Error Processing

NPAC SMS shall upon finding that an NPA-NXX already exists for a service provider in a region, reject a request to add an NPA-NXX for a service provider and report an error to the user

RR4-7 Duplicate LRN Validation

NPAC SMS shall validate upon request to add an LRN for a service provider, that the LRN does not exist for any service provider in the region

RR4-8 Duplicate LRN Validation – Error Processing

NPAC SMS shall upon finding that an LRN already exists for a service provider in a region, reject a request to add an LRN for a service provider and report an error to the user

5. Subscription Management

5.1 Subscription Version Management

Subscription Management functions allow NPAC personnel and SOA-to-NPAC SMS interface users to specify data needed for ported numbers. The subscription data indicates how local number portability should operate to meet subscribers' needs. These functions will be accessible to authorized service providers via an interface (i.e., the SOA-to-NPAC SMS interface) from their operations systems to the NPAC SMS and will also be accessible to (and performed by) NPAC personnel.

Subscription Management supports functionality to manage multiple versions of subscription data. See Section [05.1.1, Subscription Version Management](#), for more details on the different states of a version.

RN5-1 Subscription Version Status - Only One Per Subscription

NPAC SMS shall allow only one pending, cancel pending, conflict, disconnect pending, failed or partial failure Subscription Version per subscription.

RN5-2 Subscription Version Status - Only One Active Version

NPAC SMS shall allow only one active Subscription Version per subscription.

RN5-3 Subscription Version Status - Multiple Old/Canceled

NPAC SMS shall allow multiple old and/or canceled Subscription Versions per subscription.

RR5-113 TN Range Notification Information – Service Provider TN Range Notification Indicator Sending of TN Range Notifications

NPAC SMS shall send TN Range Notifications, via the SOA-to-NPAC SMS Interface, if the Service Provider's TN Range Notification Indicator is **TRUE** (Formerly NANC 179 Req 4).

RR5-114 TN Range Notification Information – Service Provider TN Range Notification Indicator Suppression of TN Range Notifications

NPAC SMS shall suppress TN Range Notifications and send individual TN Notifications, via the SOA-to-NPAC SMS Interface, if the Service Provider's TN Range Notification Indicator is **FALSE** (Formerly NANC 179 Req 5).

ARS-3 Changing of TN Range Notification Indicator while Notifications are Queued

In the event that the TN Range Notification Indicator is changed from **TRUE** to **FALSE** any notifications for multiple TNs that were already created and are in queue will be sent in the range format and in the event that the TN Range Notification Indicator is changed from **FALSE** to **TRUE** any notifications for multiple TNs that were already created and are in queue will be sent in the single format.

RR5-115 TN Range Notification Information – Single TN Range Notifications

NPAC SMS shall send a single TN Range Notification when the same feature data applies to all TNs in the range (Formerly NANC 179 Req 6).

Subscription Management

RR5-116 TN Range Notification Information – Breakup of TN Range Notifications

NPAC SMS shall send more than one TN Range Notification when the same feature data does NOT apply to all TNs in the range, by breaking up the TN Range and sending TN Range Notifications such that the same feature data applies to all TNs in the smaller broken up TN Ranges (Formerly NANC 179 Req 7)

RR5-173 TN Range Notification Information – Breakup of TN Range Notifications

NPAC SMS shall send more than one TN Range Notification when a subsequent request is received for a TN range that was different than the original create TN range by breaking up the TN Range and sending single TN Range Notifications

Note: An example of a different subsequent request is an original create range of 5 TNs, followed by an activate of a single TN. This leads to the NPAC breaking up the range into singles upon receipt of the first request that doesn't match the original create range request

RR5-221 Subscription Version Optional Data in XML Interface

NPAC SMS shall support Subscription Version optional data described in the native XML schema document (Previously NANC 372, Req 5)

5.1.1 Subscription Version Management

Subscription Version management provides functionality to manage multiple time-sensitive views of subscription data. This section addresses version management for LNP and the user and system functionality needed for subscription administration. In this context a version may be defined as time-sensitive subscription data.

At any given time, a Subscription Version in the SMS can have one of several statuses (e.g., active, old) and may change status depending on results of different SMS processes (e.g., modification, activation). This section describes the different statuses that a version can have and the SMS processes that can change the status. This section also discusses functionality and data that is needed for Subscription Management.

5.1.1.1 Version Status

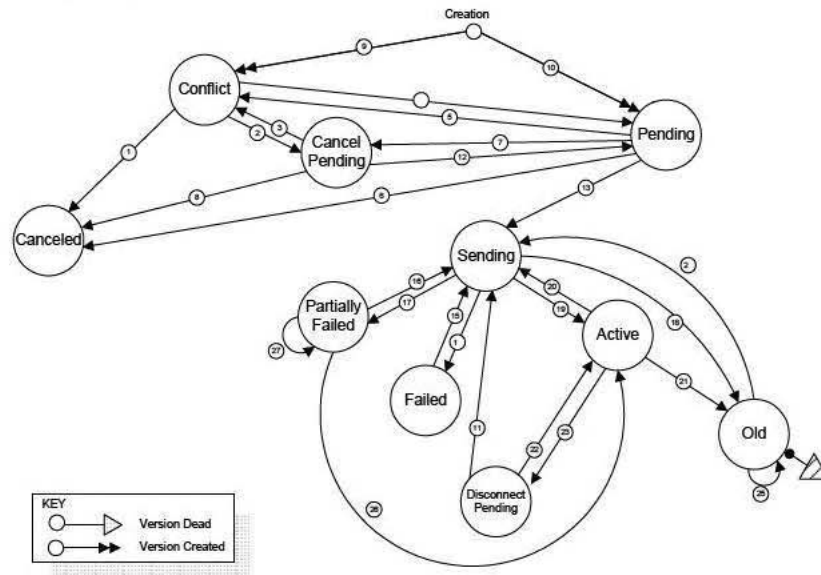


Figure 5-1 -- Subscription Version Status Interaction Diagram

| Subscription Version Status Interaction Descriptions | | | |
|--|--------------------|--|---|
| # | Interaction Name | Type | Description |
| 1 | Conflict to Cancel | NPAC SMS Internal | NPAC SMS automatically sets a Subscription Version in conflict directly to canceled after it has been in conflict for a tunable number of calendar days |
| | | SOA to NPAC SMS Interface or NPAC SOA Low-tech or Administrative Interface | The old Service Provider User (or NPAC personnel acting on behalf of the Service Provider) sends a cancellation request for a Subscription Version created by that Service Provider with a status of conflict that has not been concurred by the other new Service Provider |

Subscription Management

| Subscription Version Status Interaction Descriptions | | | |
|--|----------------------------|--|---|
| # | Interaction Name | Type | Description |
| 2 | Conflict to Cancel Pending | NPAC SOA Low-tech or Administrative Interface | User cancels a Subscription Version in conflict or cancels a Subscription Version that was created by or concurred to by both Service Providers |
| | | SOA to NPAC SMS Interface | User sends a cancellation request for a Subscription Version that was created by or concurred to by both Service Providers |
| 3 | Cancel Pending to Conflict | SOA to NPAC SMS Interface or NPAC SOA Low-tech Interface | Service Provider User sends an un-do cancel-pending request for a Subscription Version with a status of cancel-pending for which the same Service Provider previously issued a cancel request |
| | | NPAC SMS Internal | NPAC SMS automatically sets a Subscription Version with a status of cancel pending to conflict if cancel pending acknowledgment has not been received from the new Service Provider within a tunable timeframe |
| 4 | Conflict to Pending | NPAC Administrative Interface – NPAC Personnel and SOA-to-NPAC SMS Interface or NPAC SOA Low-tech Interface – Old Service Provider | User removes a Subscription Version from conflict |
| | | SOA to NPAC SMS Interface or NPAC SOA Low-tech Interface - New Service Provider | New Service Provider User removes a Subscription Version from conflict This action can only occur if a tunable number of hours have elapsed since the Subscription Version was placed in conflict |
| 5 | Pending to Conflict | NPAC Administrative Interface – NPAC Personnel | <ol style="list-style-type: none"> 1 User sets a Subscription Version with a status of pending to conflict 2 User creates a Subscription Version for an existing pending Subscription Version for the old Service Provider and does not provide authorization for the transfer of service |
| | | SOA to NPAC SMS Interface or NPAC SOA Low-tech Interface – Old Service Provider | Old Service Provider sends a Subscription Version creation or modification request for a Subscription Version with a status of pending, which revokes the old Service Provider's authorization for transfer of service This action can only be taken once, and must be taken a tunable number of hours prior to the new Service Provider due date |

Subscription Management

| Subscription Version Status Interaction Descriptions | | | |
|--|----------------------------|--|--|
| # | Interaction Name | Type | Description |
| 6 | Pending to Cancel | NPAC Administrative Interface – NPAC Personnel | User cancels a Subscription Version with a status of pending that has not been concurred by both service providers |
| | | SOA to NPAC SMS Interface or NPAC SOA Low-tech Interface | Service Provider User sends a cancellation request for a Subscription Version created by that Service Provider with a status of pending that has not been concurred by the other Service Provider |
| | | NPAC SMS Internal | <ol style="list-style-type: none"> 1 NPAC SMS automatically sets a pending Subscription Version to cancel after authorization for the transfer of service has not been received from the new Service Provider within a tunable timeframe. 2 NPAC SMS automatically sets a pending Subscription Version to cancel if an activation request is not received a tunable amount of time after new Service Provider due date |
| 7 | Pending to Cancel Pending | NPAC Administrative Interface - NPAC Personnel | User cancels a Subscription Version with a status of pending that has been created/concurred by both Service Providers |
| | | SOA to NPAC SMS Interface or NPAC SOA Low-tech Interface | Service Provider User sends a cancellation request for a Subscription Version with a status of pending that has been concurred by the other Service Provider |
| 8 | Cancel Pending to Cancel | NPAC SMS Internal | NPAC SMS automatically sets a cancel pending Subscription Version to canceled after receiving cancel pending acknowledgment from the concurring Service Provider, or the final cancellation concurrence window has expired without cancel concurrence from the old Service Provider |
| 9 | Creation – Set to Conflict | NPAC Administrative Interface – NPAC Personnel | User creates a Subscription Version for the old Service Provider and does not provide authorization for the transfer of service |
| | | SOA to NPAC SMS Interface and NPAC SOA Low-tech Interface – Old Service Provider | User sends an old Service Provider Subscription Version creation request and does not provide authorization for the transfer of service |

Subscription Management

| Subscription Version Status Interaction Descriptions | | | |
|--|-------------------------------|--|--|
| # | Interaction Name | Type | Description |
| 10 | Creation - Set to Pending | NPAC Administrative Interface – NPAC Personnel | User creates a Subscription Version for either the new or old Service Provider. If the create is for the old Service Provider and authorization for the transfer of service is not provided, refer to # 9, <i>Creation - Set to Conflict, NPAC SOA Low-tech Interface</i> |
| | | SOA to NPAC SMS Interface and NPAC SOA Low-tech Interface | User sends a Subscription Version creation request for either the new or old Service Provider. If the create is for the old Service Provider, and authorization for the transfer of service is not provided, refer to # 9, <i>Creation - Set to Conflict, SOA-to-NPAC SMS LOW-TECH INTERFACE</i> |
| 11 | Disconnect Pending to Sending | NPAC SMS Internal | NPAC SMS automatically sets a deferred disconnect pending Subscription Version to sending after the effective release date is reached |
| 12 | Cancel Pending to Pending | SOA to NPAC SMS Interface or NPAC SOA Low-tech Interface | Service Provider User sends an un-do cancel-pending request for a Subscription Version with a status of cancel-pending for which the same Service Provider previously issued a cancel request |
| 13 | Pending to Sending | NPAC Administrative Interface - NPAC Personnel | User activates a pending Subscription Version for a Subscription Version with a new Service Provider due date less than or equal to today |
| | | SOA to NPAC SMS Interface and NPAC SOA Low-tech Interface - New Service Provider | New Service Provider User sends an activation message for a pending Subscription Version for a Subscription Version with a new Service Provider due date less than or equal to today |
| 14 | Sending to Failed | NPAC SMS Internal | NPAC SMS automatically sets a Subscription Version from sending to failed after all Local SMSs fail. Subscription Version activation after the tunable retry period expires |
| 15 | Failed to Sending | NPAC Administrative Interface – NPAC Personnel | User re-sends a failed Subscription Version |
| 16 | Partially Failed to Sending | NPAC Administrative Interface – NPAC Personnel | User re-sends a partial failure Subscription Version |

Subscription Management

| Subscription Version Status Interaction Descriptions | | | |
|--|------------------------------|---|---|
| # | Interaction Name | Type | Description |
| 17 | Sending to Partially Failed | NPAC SMS Internal | NPAC SMS automatically sets a Subscription Version from sending to partial failure after one or more, but not all, of the Local SMSs fail the Subscription Version activation after the tunable retry period expires |
| 18 | Sending to Old | NPAC SMS Internal | NPAC SMS automatically sets a sending Subscription Version to old after a disconnect or “porting to original” port to all Local SMSs successfully completes Disconnects that fail on one or more, but not all, Local SMSs will also be set to old |
| 19 | Sending to Active | NPAC SMS Internal | <ol style="list-style-type: none"> 1 NPAC SMS automatically sets a sending Subscription Version to active after the Subscription Version activation is successful in all of the Local SMSs 2 NPAC SMS automatically sets a sending Subscription Version to active after the Subscription Version modification is successfully broadcast to any of the Local SMSs after all have responded 3 NPAC SMS automatically sets a sending Subscription Version to active after a failure to all Local SMSs on a disconnect |
| 20 | Active to Sending | NPAC Administrative Interface – NPAC Personnel | User disconnects an active Subscription Version and does not supply an effective release date, User modifies an active Subscription Version or resends a failed disconnect or modify |
| | | SOA to NPAC SMS Interface to NPAC SOA Low-tech Interface - Current Service Provider | User sends a disconnect request for an active Subscription Version and does not supply an effective release date, or User modifies an active Subscription Version |
| 21 | Active to Old | NPAC SMS Internal | NPAC SMS automatically sets the currently active Subscription Version to old once a currently active subscription version is superseded by a pending subscription version, due to the fact that the current version is set to old when an activate occurs The new pending version is set to sending and then to active, partially failed, or old On a disconnect the sending state occurs before the old |
| 22 | Disconnect Pending to Active | NPAC Administrative Interface – NPAC Personnel | User cancels a Subscription Version with a disconnect pending status |

Subscription Management

| Subscription Version Status Interaction Descriptions | | | |
|--|--------------------------------------|---|---|
| # | Interaction Name | Type | Description |
| | | SOA to NPAC SMS Interface and NPAC SOA Low-tech Interface – New Service Provider | User sends a cancellation request for a disconnect pending Subscription Version |
| 23 | Active to Disconnect Pending | NPAC Administrative Interface - NPAC Personnel | User disconnects an active Subscription Version and supplies a future effective release date |
| | | SOA to NPAC SMS Interface and NPAC SOA Low-tech Interface- Current Service Provider | User sends a disconnect request for an active Subscription Version and supplies a future effective release date |
| 24 | Old to Sending | NPA Operations Interface – NPAC Personnel | User re-sends a partial failure of a disconnect or partial failure or failure of a port-to-original Subscription Version |
| 25 | Old to Old | NPAC SMS Internal | NPAC SMS automatically sets a Subscription Version from old to old after one or more previously failed Local SMSs successfully disconnect a Subscription Version, as a result of an audit or LSMS resync The Failed_SP_List is updated to reflect the updates to the previously failed SPs |
| 26 | Partially Failed to Active | NPAC SMS Internal | NPAC SMS automatically sets a Subscription Version from partial failure to active after all previously failed Local SMSs successfully activate a Subscription Version, as a result of an audit or LSMS resync The Failed_SP_List is updated to reflect the updates to the previously failed SPs |
| 27 | Partially Failed to Partially Failed | NPAC SMS Internal | NPAC SMS automatically sets a Subscription Version from partial failure to partial failure after one or more, but not all previously failed Local SMSs successfully activate a Subscription Version, as a result of an audit or LSMS resync The Failed_SP_List is updated to reflect the updates to the previously failed SPs |

Table 5-1 Subscription Version Status Interaction Descriptions

R5-1.1 Subscription Version Statuses

NPAC SMS Subscription Version instances shall at any given time have one of the following statuses:

- Active - Version is currently active in the network

Subscription Management

NOTE: *There may be another pre-active version in the system that will eventually supersede this version.
Examples: 1) Pending version for the active subscription exists 2) Sending version for the active subscription exists.*

- Canceled - A pending or conflict version was canceled prior to activation in the network
- Cancel Pending - Version is awaiting cancellation acknowledgment from the concurring Service Providers, at which time the version will be set to canceled
- Conflict - Version is in conflict (i.e., a dispute exists between the two Service Providers), awaiting resolution
- Disconnect Pending - Version is awaiting the effective release date, at which time the version will be set to sending and the disconnect request will be sent to all Local SMSs
- Failed - Version failed activation in ALL of the Local SMSs in the network
- Old - Version was previously active in the network and either was superseded by another active version or was disconnected
- Partial Failure - Version failed activation in one or more, but not all, Local SMSs in the network
- Pending - Version is either pending activation (approval had been received from both Service Providers) or pending creation/approval from one or the other Service Provider
- Sending - Version is currently being sent to all of the Local SMSs in the network

R5-2.1 Old Subscription Retention - Tunable Parameter

NPAC SMS shall provide an Old Subscription Retention tunable parameter which is defined as the length of time that old Subscription Versions shall be retained and accessible through a query request

R5-2.2 Old Subscription Retention - Tunable Parameter Modification

NPAC SMS shall allow the NPAC SMS Administrator to modify the Old Subscription Retention tunable

R5-2.3 Old Subscription Retention - Tunable Parameter Default

NPAC SMS shall default the Old Subscription Retention tunable parameter to 18 calendar months

R5-3.1 Cancel-Pending Subscription Retention - Tunable Parameter

NPAC SMS shall provide a Cancel-Pending Subscription Retention tunable parameter which is defined as the length of time that canceled Subscription Versions with a pre-cancellation status of pending shall be retained and accessible through a query request

R5-3.2 Cancel-Pending Subscription Retention - Tunable Parameter Modification

NPAC SMS shall allow the NPAC SMS Administrator to modify the Cancel-Pending Subscription Retention tunable parameter

R5-3.3 Cancel-Pending Subscription Retention - Tunable Parameter Default

NPAC SMS shall default the Cancel-Pending Subscription Retention tunable parameter to 90 calendar days

Subscription Management

R5-3.4 Cancel-Conflict Subscription Retention - Tunable Parameter

NPAC SMS shall provide a Cancel-Conflict Subscription Retention tunable parameter which is defined as the length of time that canceled Subscription Versions with a pre-cancellation status of conflict shall be retained and accessible through a query request

R5-3.5 Cancel-Conflict Subscription Retention - Tunable Parameter Modification

NPAC SMS shall allow the NPAC SMS Administrator to modify the Cancel-Conflict Subscription Retention tunable parameter

R5-3.6 Cancel-Conflict Subscription Retention - Tunable Parameter Default

NPAC SMS shall default the Cancel-Conflict Subscription Retention tunable parameter to 30 calendar days

RR5-1.1 Pending Subscription Retention - Tunable Parameter

NPAC SMS shall provide a Pending Subscription Retention tunable parameter, which is defined as the length of time that a pending Subscription Version shall remain in the system prior to cancellation

RR5-1.2 Pending Subscription Retention - Tunable Parameter Modification

NPAC SMS shall allow the NPAC SMS Administrator to modify the Pending Subscription Retention tunable parameter

RR5-1.3 Pending Subscription Retention - Tunable Parameter Default

NPAC SMS shall default the Pending Subscription Retention tunable parameter to 90 calendar days

RR5-1.4 Pending Subscription Retention - Tunable Parameter Expiration

NPAC SMS shall cancel a Subscription Version by setting the subscription version to cancel after a pending Subscription Version has existed in the system for a Pending Subscription Retention number of calendar days subsequent to new Service Provider Due Date, or old Service Provider Due Date if the new Service Provider Due Date has not been received by the NPAC SMS

R5-5 Subscription Versions Creation for TN Ranges

NPAC SMS shall create individual Subscription Versions when a Subscription Version creation request is received for a TN range

R5-6 Subscription Administration Transaction Logging

NPAC SMS shall log all subscription administration transactions The log entries shall include:

- Activity Type: create, modify, activate, query, all status types, and all acknowledgments
- Service Provider ID
- Initial Version Status
- New Version Status (if applicable)
- User ID and/or Login
- Local Number Portability Type
- Date
- Time
- Ported Telephone Number

Subscription Management

- Status Flag - successful or failed
- Subscription Version ID (when assigned)

RR5-182 Create/Modify Subscription Version – Medium Timers – Timer Type

NPAC SMS shall set the *value* of a Subscription Version Timer Type, based on SP Profile and Subscription Version data contained in Table RR3-182 (previously NANC 441, Req 3)

Note: If one or both service providers don't support Medium Timers the NPAC sets Timer Type and Business Type as specified in the existing requirements R5-19 3, R5-19 4, R5-19 5 and R5-19 6

| Table RR3-182 – Timer Type Values | | | |
|--|------------------------|--------------------|--------|
| NSP is Short, OSP is Short, Timer Type is Short regardless of Indicators | | | |
| NSP is Short, OSP is Long | | | |
| NSP is First Create | NSP SOA Indicator is F | Timer set to: | Long |
| | OSP SOA Indicator is F | Timer remains: | Long |
| | OSP SOA Indicator is T | Timer switches to: | Medium |
| | OSP no concur | Timer remains: | Long |
| NSP is First Create | NSP SOA Indicator is T | Timer set to: | Medium |
| | OSP SOA Indicator is F | Timer switches to: | Long |
| | OSP SOA Indicator is T | Timer remains: | Medium |
| | OSP no concur | Timer remains: | Medium |
| OSP is First Create | OSP SOA Indicator is F | Timer set to: | Long |
| | NSP SOA Indicator is F | Timer remains: | Long |
| | NSP SOA Indicator is T | Timer remains: | Long |
| OSP is First Create | OSP SOA Indicator is T | Timer set to: | Medium |
| | NSP SOA Indicator is F | Timer remains: | Medium |
| | NSP SOA Indicator is T | Timer remains: | Medium |
| NSP is Long, OSP is Short | | | |
| NSP is First Create | NSP SOA Indicator is F | Timer set to: | Long |
| | OSP SOA Indicator is F | Timer remains: | Long |
| | OSP SOA Indicator is T | Timer switches to: | Medium |
| | OSP no concur | Timer remains: | Long |
| NSP is First Create | NSP SOA Indicator is T | Timer set to: | Medium |
| | OSP SOA Indicator is F | Timer switches to: | Long |

Subscription Management

| | | | |
|---------------------------------|------------------------|--------------------|--------|
| | OSP SOA Indicator is T | Timer remains: | Medium |
| | OSP no concur | Timer remains: | Medium |
| OSP is First Create | OSP SOA Indicator is F | Timer set to: | Long |
| | NSP SOA Indicator is F | Timer remains: | Long |
| | NSP SOA Indicator is T | Timer remains: | Long |
| OSP is First Create | OSP SOA Indicator is T | Timer set to: | Medium |
| | NSP SOA Indicator is F | Timer remains: | Medium |
| | NSP SOA Indicator is T | Timer remains: | Medium |
| NSP is Long, OSP is Long | | | |
| NSP is First Create | NSP SOA Indicator is F | Timer set to: | Long |
| | OSP SOA Indicator is F | Timer remains: | Long |
| | OSP SOA Indicator is T | Timer switches to: | Medium |
| | OSP no concur | Timer remains: | Long |
| NSP is First Create | NSP SOA Indicator is T | Timer set to: | Medium |
| | OSP SOA Indicator is F | Timer switches to: | Long |
| | OSP SOA Indicator is T | Timer remains: | Medium |
| | OSP no concur | Timer remains: | Medium |
| OSP is First Create | OSP SOA Indicator is F | Timer set to: | Long |
| | NSP SOA Indicator is F | Timer remains: | Long |
| | NSP SOA Indicator is T | Timer remains: | Long |
| OSP is First Create | OSP SOA Indicator is T | Timer set to: | Medium |
| | NSP SOA Indicator is F | Timer remains: | Medium |
| | NSP SOA Indicator is T | Timer remains: | Medium |

RR5-183 Create/Modify Subscription Version – Medium Timers – Business Type

NPAC SMS shall set the *value* of a Subscription Version Business Type to Medium anytime the Subscription Version Timer Type is set to Medium (previously NANC 441, Req 4)

Note: Anytime the Timer Type is currently set to Medium and the NPAC changes it due to a modify SV request, a different Business Type value will be also set as specified in the existing requirements R5-19 5 and R5-19 6

5.1.2 Subscription Administration Requirements

5.1.2.1 User Functionality

Authorized users can invoke the following functionality in the NPAC SMS to administer subscription data:

R5-7 Creating a Subscription Version

NPAC SMS shall allow NPAC personnel and the SOA-to-NPAC SMS interface to create a Subscription Version

RR5-55 Create Pending Provider Port – NPAC Personnel or Service Provider After Block Activation

NPAC SMS shall allow NPAC personnel, a Service Provider SOA via the SOA-to-NPAC SMS Interface, or Service Provider via the NPAC SOA Low-tech Interface, to create inter-service provider ports or intra-service provider ports for a TN within the 1K Block, when the currently active Subscription Version(s) is LNP Type POOL, and the Block's status is active, with an empty Failed SP List (Previously SV-195)

R5-8.1 Modifying a Subscription Version

NPAC SMS shall allow NPAC personnel and the SOA-to-NPAC SMS interface to modify a Subscription Version

R5-9 Activating a Subscription version

NPAC SMS shall allow NPAC personnel and the SOA-to-NPAC SMS interface to activate a Subscription Version

R5-10.1 Setting a Subscription Version to Conflict

NPAC SMS shall allow NPAC personnel to set a Subscription Version to conflict

R5-10.2 Subscription Version Conflict Status Rule

NPAC SMS shall prohibit a Subscription Version in conflict from being activated

R5-11 Disconnecting a Subscription Version

NPAC SMS shall allow NPAC personnel and the SOA-to-NPAC SMS interface to disconnect a Subscription Version

R5-12 Canceling a Subscription Version

NPAC SMS shall allow NPAC personnel and the SOA-to-NPAC SMS interface to cancel a Subscription Version

R5-13 Querying a Subscription Version

NPAC SMS shall allow NPAC personnel, Local SMS/SOA-to-NPAC SMS interface to query for a Subscription Version

RR5-197 Create Subscription Version – Validation of DPC-SSNs for Subscription Version Creates

NPAC shall reject New Service Provider Subscription Version Create requests from the SOA Low-Tech Interface or NPAC Administrative Interface if a DPC-SSN is specified and a valid DPC-SSN reference does not exist in the Service Provider DPC-SSN source data (previously NANC 427, Req 6)

5.1.2.2 System Functionality

This section describes NPAC SMS functionality required to support NPAC personnel and SOA-to-NPAC SMS interface user requests defined in the above section

Additionally, NPAC SMS functionality will perform operations which are not invoked by a direct user request. Some examples of this are: monitor a Subscription Version to determine whether the old and the new facilities-based Service Providers have authorized the transfer of service for a ported number, issue appropriate notifications to Service Providers, and change the status of a Subscription Version based on tunable parameters

5.1.2.2.1 Subscription Version Creation

This section provides the requirements for the Subscription Version Create functionality, which is executed upon the user requesting to create a Subscription Version

RR5-3 Create Subscription Version - Notify NPA-NXX First Usage

NPAC SMS shall notify all accepting Local SMSs and SOAs of the NPA-NXX, effective date, and owning Service Provider when an NPA-NXX is being ported for the first time immediately after creation validation of a Subscription Version (excluding pseudo-LRN)

RR5-53 Create Subscription Version - Notify NPA-NXX First Usage of a New NPA-NXX involved in an NPA Split

NPAC SMS shall notify all accepting Local SMSs and SOAs of the NPA-NXX, effective date, and owning Service Provider when a new NPA-NXX involved in an NPA Split, is being ported for the first time, after the start of permissive dialing, immediately after creation validation of a Subscription Version (excluding pseudo-LRN), only in cases where no SV or NPA-NXX-X activity had previously taken place in the Old NPA-NXX

RR5-120 Validation of LATA ID for Subscription Version Creates

NPAC shall reject Subscription Version Create Requests if the NPA-NXX of the TN and the NPA-NXX of the LRN have different LATA IDs (previously NANC 319 Req 6)

RR5-130 Create “Porting to Original” Subscription Version – New Service Provider ID and Code Holder Match

NPAC SMS shall validate that the new Service Provider Id is the same as the Code Holder for the TN (or Block Holder if the TN is part of a Number Pool Block) in a “Port to Original” subscription version request for both Inter- and Intra-Service Provider ports

RR5-162 Addition of Subscription Version Due Date – Validation

NPAC SMS shall verify that the Due Date is equal to, or greater than, the NPA-NXX Live TimeStamp, and equal to or greater than the current date, when adding a Subscription Version (previously NANC 394, Req 6)

Note: For an Inter-Service Provider port, the due date may be a past date when it is the 2nd create for the subscription version (see requirement RR5-119)

RR5-228 Notification Suppression – SV Request Indicators determine Suppression

NPAC SMS shall suppress notifications on a per-request basis based on the values in the request and the table below: (previously NANC 458 Req 15)

Subscription Management

| Role of SPID Sending Request | Suppress Notifications Options: | | | | |
|---|---------------------------------|---------|-------------|------------|------------------------------|
| | Self (Initiator) | Grantor | Delegate(s) | Other SPID | Delegate(s) of Other SPID |
| BAU SPID | Y | N/A | N/A | Y | Y |
| Delegate | Y | Y | Y | Y | Y |
| Grantor | Y | N/A | Y | Y | Y |
| (shading) = Authorization required from the SPID being suppressed | | | | | |

5.1.2.2.1.1 Subscription Version Creation - Inter-Service Provider Ports

This section provides the Subscription Version Creation requirements for performing an Inter-Service Provider port of a TN. There are two types of Inter-Service Provider ports: A port of a TN to a new Service Provider from the Old, or a “porting to original” port. A “porting to original” port implies that all porting data will be removed from the Local SMSs and the TN will revert to the default routing, which ultimately results in the TN returning to the original “donor” Service Provider.

The primary differences in functionality between these two types of Inter-Service Provider ports is that for a “porting to original” port, the routing data is not supplied and upon activation, a delete request is broadcast to the Local SMSs instead of a create request.

Both port types of Inter-Service Provider ports require authorization for the transfer of service from the new Service Provider.

R5-14 Create Subscription Version - Old Service Provider Input Data

NPAC SMS shall accept the following data from the NPAC personnel or old Service Provider upon Subscription Version creation for an Inter-Service Provider port:

- Local Number Portability Type -Port Type
- Ported Telephone Number(s) - this entry can be a single TN or a continuous range of TNs that identifies a subscription or a group of Subscription Versions that share the same attributes
- Due Date - date on which transfer of service from old facilities-based Service Provider to new facilities-based Service Provider is initially planned to occur
- New facilities-based Service Provider ID - the identifier of the new facilities-based Service Provider
- Old facilities-based Service Provider ID - the identifier of the old facilities-based Service Provider
- Authorization from old facilities-based Service Provider - indication that the transfer of service is authorized by the ported-from Service Provider
- Status Change Cause Code - indication of reason for denial of authorized by the Old Service Provider
- Old SP Medium Timer Indicator – indication that Old SP considers this a simple port using Medium Timers (if supported by the Service Provider SOA)

R5-15.1 Create “Inter-Service Provider Port” Subscription Version - New Service Provider Input Data

NPAC SMS shall require the following data from NPAC personnel or the new Service Provider upon Subscription Version creation for an Inter-Service Provider port when **NOT** “porting to original”: (reference NANC 399)

Subscription Management

- Local Number Portability Type - Port Type This field must be set to “LSP” for Inter-Service Provider ports
- Ported Telephone Number(s) - this entry can be a single TN or a continuous range of TNs that identifies a subscription or a group of Subscription Versions that share the same attributes
- Due Date - date on which transfer of service from old facilities-based Service Provider to new facilities-based Service Provider is initially planned to occur
- New Facilities-based Service Provider ID - the identifier of the new facilities-based Service Provider
- Old Facilities-based Service Provider ID - the identifier of the old facilities-based Service Provider
- Location Routing Number (LRN) - the identifier of the ported-to switch (excluding pseudo-LRN)
- Class DPC (optional for the XML interface)
- Class SSN (optional for the XML interface)
- LIDB DPC (optional for the XML interface)
- LIDB SSN (optional for the XML interface)
- CNAM DPC (optional for the XML interface)
- CNAM SSN (optional for the XML interface)
- ISVM DPC (optional for the XML interface)
- ISVM SSN (optional for the XML interface)
- WSMSC DPC (if supported by the Service Provider SOA), (optional for the XML interface)
- WSMSC SSN (if supported by the Service Provider SOA), (optional for the XML interface)
- Porting to Original - flag indicating whether or not this is a “porting to original” port This flag must be set to “FALSE” for this type of Inter-Service Provider port
- SV Type (if supported by the Service Provider SOA)
- New SP Medium Timer Indicator – indication that New SP considers this a simple port using Medium Timers (if supported by the Service Provider SOA)

R5-15.2 Create “Inter-Service Provider porting to original” Subscription Version - New Service Provider Input Data

NPAC SMS shall require the following data from NPAC personnel or the new Service Provider upon Subscription Version creation for an Inter-Service Provider “porting to original” port:

- Local Number Portability Type - Port Type This field must be set to “LSP” for “Inter-Service Provider porting to original” ports
- Ported Telephone Number(s) - this entry can be a single TN or a continuous range of TNs that identifies a subscription or a group of Subscription Versions that share the same attributes
- Due Date - date on which transfer of service from old facilities-based Service Provider to new facilities-based Service Provider is initially planned to occur
- New Facilities-based Service Provider ID - the identifier of the new facilities-based Service Provider, also the NPA-NXX code holder or Block Holder if this TN is part of a Number Pool Block
- Old Facilities-based Service Provider ID - the identifier of the old facilities-based Service Provider
- Porting to original - flag indicating whether or not this is a “porting to original” port This flag must be set to “TRUE” for “Inter-Service Provider porting to original” ports, and set to “FALSE” for other Inter-Service Provider ports

Subscription Management

- New SP Medium Timer Indicator – indication that New SP considers this a simple port using Medium Timers (if supported by the Service Provider SOA)

**R5-16 Create Inter-Service Provider (non-PTO) Subscription Version - New Service Provider
Optional input data**

NPAC SMS shall accept the following optional fields from NPAC personnel or the new Service Provider upon Subscription Version creation for an Inter-Service Provider port, when the Porting to Original flag is set to False: (reference NANC 399)

- Billing Service Provider ID
- End-User Location - Value
- End-User Location - Type
- Alternative SPID (if supported by the Service Provider SOA)
- Last Alternative SPID (if supported by the Service Provider SOA)
- Voice URI (if supported by the Service Provider SOA)
- MMS URI (if supported by the Service Provider SOA)
- SMS URI (if supported by the Service Provider SOA)

**RR5-179 Create Inter-Service Provider PTO Subscription Version - New Service Provider Data
Attributes – Rejected**

NPAC SMS shall reject an Inter-Service Provider Create Request that includes the following data attributes from NPAC personnel or the new Service Provider, when the Porting to Original flag is set to True: (reference NANC 399)

- LRN
- Class DPC
- Class SSN
- LIDB DPC
- LIDB SSN
- CNAM DPC
- CNAM SSN
- ISVM DPC
- ISVM SSN
- WSMSC DPC (if supported by the Service Provider SOA)
- WSMSC SSN (if supported by the Service Provider SOA)
- Porting to Original
- Billing Service Provider ID
- End-User Location - Value
- End-User Location - Type
- SV Type
- Alternative SPID

R5-18.1 Create Subscription Version - Field-level Data Validation

NPAC SMS shall perform field-level data validations to ensure that the value formats for the following input data, if supplied, is valid according to the formats specified in Table 3-6 upon Subscription Version creation for an Inter-Service Provider port: (reference NANC 399)

- LNP Type
- Ported TN(s)
- Old Service Provider Due Date

Subscription Management

- New Service Provider Due Date
- Old Service Provider ID
- New Service Provider ID
- Authorization from old facilities-based Service Provider
- Status Change Cause Code
- LRN
- Class DPC
- Class SSN
- LIDB DPC
- LIDB SSN
- CNAM DPC
- CNAM SSN
- ISVM DPC
- ISVM SSN
- WSMSC DPC
- WSMSC SSN
- Porting to Original
- Billing Service Provider ID
- End-User Location - Value
- End-User Location - Type
- SV Type (if supported by the Service Provider SOA)
- Alternative SPID (if supported by the Service Provider SOA)
- Last Alternative SPID (if supported by the Service Provider SOA)
- Alt-End User Location Value (if supported by the Service Provider SOA)
- Alt-End User Location Type (if supported by the Service Provider SOA)
- Alt-Billing ID (if supported by the Service Provider SOA)
- Voice URI (if supported by the Service Provider SOA)
- MMS URI (if supported by the Service Provider SOA)
- SMS URI (if supported by the Service Provider SOA)
- New SP Medium Timer Indicator (if supported by the Service Provider SOA)
- Old SP Medium Timer Indicator (if supported by the Service Provider SOA)

R5-18.2 Create Subscription Version - Due Date Consistency Validation

NPAC SMS shall verify the old and new Service Provider due dates are the same upon initial Subscription Version creation for an Inter-Service Provider port

R5-18.3 Create Subscription Version - Due Date Validation

DELETED

RR5-131 Create “Inter-Service Provider Port” Subscription Version - Due Date Validation For First Port

DELETED

RR5-132 Create “Inter-Service Provider Port” Subscription Version - Due Date Validation For Subsequent Port Within the NPA-NXX-X Holder Information Effective Date Window–Tunable Window

DELETED

Subscription Management

R5-18.4 Create Subscription Version - Ported TN NPA-NXX Validation

NPAC SMS shall verify that the NPA-NXX to be ported exists as an NPA-NXX in the NPAC SMS system upon Subscription Version creation for an Inter-Service Provider port

RR5-44 Create Subscription Version – Due Date Validation for NPA-NXX effective date

DELETED

RR5-119 Subscription Version – Due Date Validation for Second/Concurrence Create Message for a Subscription Version Inter-Service Provider Port

NPAC SMS shall allow the due date to be a past date upon Subscription Version concurrence (2nd create for this Subscription Version) for an Inter-Service Provider port (Formerly NANC 294 Req 1)

R5-18.5 Create Subscription Version - Service Provider ID Validation

NPAC SMS shall verify that the old and new Service Provider IDs exist in the NPAC SMS system upon Subscription Version creation for an Inter-Service Provider port

R5-18.6 Create Subscription Version - LRN Validation

NPAC SMS shall verify that an input LRN is associated with the new Service Provider in the NPAC SMS system upon Subscription Version creation for an Inter-Service Provider port

R5-18.7 Create Subscription Version - Originating Service Provider Validation

NPAC SMS shall verify that the originating user is identified as the new or old Service Provider on the incoming Subscription Version upon Subscription Version creation for an Inter-Service Provider port

R5-18.8 Create Subscription Version - Duplicate Authorization Validation

NPAC SMS shall verify that authorization for transfer of service for a given Service Provider does not already exist when a Service Provider creates a Subscription Version for an Inter-Service Provider port

R5-18.9 Create Subscription Version - Service Provider ID Validation

NPAC SMS shall verify that the incoming New and Old Service Provider IDs match the IDs in the current pending version, if one exists, upon Subscription Version creation for an Inter-Service Provider port

R5-18.10 Create Subscription Version - Status Change Cause Code Validation

NPAC SMS shall require and only allow the Status Change Cause Code to be set when the Old Service Provider authorization is set to false

R5-19.1 Create Subscription Version - Old Service Provider ID Validation

NPAC SMS shall verify that the old Service Provider ID on the version being created is equal to the new Service Provider ID on the active Subscription Version, if an active version exists upon Subscription Version creation for an Inter-Service Provider port

Subscription Management

R5-19.2 Create Subscription Version - Old Service Provider ID Validation - No Active Subscription Version

NPAC SMS shall validate that the old Service Provider in the create message is the Service Provider to which the TN's NPA-NXX is assigned (as stored in the NPAC SMS service provider data tables) if there is currently no active Subscription Version for the TN in the NPAC SMS

R5-19.3 Create Subscription Version – Timer Type Selection

NPAC SMS shall if the old and new service provider timer types match set the subscription version timer type to that timer type

R5-19.4 Create Subscription Version – Timer Type Selection - Mismatch

NPAC SMS shall if the old and new service provider timer types do not match set the subscription version timer type to the longer timer type of the port out type for the old service provider and the port in type of the new service provider

R5-19.5 Create Subscription Version – Business Hours and Days Selection

NPAC SMS shall if the old and new service provider business hours and days match set the subscription version business type to the business type for the business hours and days supported

R5-19.6 Create Subscription Version – Business Hours and Days Selection - Mismatch

NPAC SMS shall if the old and new service provider business hours and days do not match set the subscription version business type to the shorter business hours and days

R5-20.1 Create Subscription Version - Validation Failure Notification

NPAC SMS shall send an appropriate error message to the originating NPAC personnel or SOA-to-NPAC SMS interface user if any of the validations fail upon Subscription Version creation for an Inter-Service Provider port

R5-20.2 Create Subscription Version - Validation Failure - No Update

NPAC SMS shall not apply the incoming data to an existing subscription if any of the validations fail upon Subscription Version creation for an Inter-Service Provider port

R5-20.3 Create Subscription Version - Validation Failure - No Create

NPAC SMS shall not create a new Subscription Version, if a version does not exist, if any of the validations fail upon Subscription Version creation for an Inter-Service Provider port

R5-20.4 Create Subscription Version - Validation Success - Update Existing

NPAC SMS shall apply the incoming data to an existing Subscription Version if all validations pass upon Subscription Version creation for an Inter-Service Provider or port

R5-20.5 Create Subscription Version - Validation Success - Create New

NPAC SMS shall create a new Subscription Version, if a version does not already exist, if all validations pass at the time of Subscription Version creation for an Inter-Service Provider port

Subscription Management

R5-21.1 Initial Concurrence Window - Tunable Parameter

NPAC SMS shall provide long and short Initial Concurrence Window tunable parameters which are defined as the number of business hours subsequent to the time the Subscription Version was initially created by which both Service Providers can authorize transfer of service if this is an Inter-Service Provider port

R5-21.2 Initial Concurrence Window - Tunable Parameter Modification

NPAC SMS shall allow the NPAC SMS Administrator to modify the long and short Initial Concurrence Window tunable parameters

R5-21.3 Long Initial Concurrence Window - Tunable Parameter Default

NPAC SMS shall default the long Initial Concurrence Window tunable parameter to 9 business hours

R5-21.4 Short Initial Concurrence Window - Tunable Parameter Default

NPAC SMS shall default the short Initial Concurrence Window tunable parameter to 1 business hour

R5-21.6 Create Subscription Version - Set to Pending

NPAC SMS shall set a Subscription Version to pending upon successful subscription creation and the Old Service Provider has authorized transfer of service if this is an Old Service Provider create request for an Inter-Service Provider port

R5-21.7 Create Subscription Version - Notify User Success

NPAC SMS shall notify the old and new Service Providers when a Subscription Version is set to pending upon successful subscription creation for an Inter-Service Provider port

RR5-2.1 Create Subscription Version - Set to Conflict

NPAC SMS shall set a Subscription Version directly to conflict and set the cause code, if the Subscription Version passed validations, but this is a create request from the Old Service Provider and the Old Service Provider did not authorize transfer of service for an Inter-Service Provider port and specified a cause code

RR5-2.2 Create Subscription Version - Set Conflict Timestamp

NPAC SMS shall set the conflict timestamp to the current time when a Subscription Version is set to conflict at the time of subscription version creation for an Inter-Service Provider port

RR5-2.3 Create Subscription Version - Conflict Notification

NPAC SMS shall notify the Old and New Service Provider when a Subscription Version is set to conflict at the time of Subscription Version creation for an Inter-Service Provider or port

RR5-2.4 Cause Code in Conflict Notification - Creation

NPAC SMS shall include the cause code in the conflict notification to the Old and New Service Provider when the Old Service Provider did not authorize transfer of service for an Inter-Service Provider port on creation

Subscription Management

R5-22 Create Subscription Version - Initial Concurrence Window Tunable Parameter Expiration

NPAC SMS shall send a notification to the Service Provider (old or new) who has not yet authorized the transfer of service, when the Initial Concurrence Window tunable parameter for a pending Subscription Version has expired

R5-23.1 Final Concurrence Window - Tunable Parameter

NPAC SMS shall provide long and short Final Concurrence Window tunable parameters which are defined as the number of business hours after the concurrence request is sent by the NPAC SMS by which time both Service Providers can authorize transfer of subscription service for an Inter-Service Provider port

R5-23.2 Final Concurrence Window Tunable - Tunable Parameter Modification

NPAC SMS shall allow the NPAC SMS Administrator to modify the long and short Final Concurrence Window tunable parameters

R5-23.3 Long Final Concurrence Window Tunable - Tunable Parameter Default

NPAC SMS shall default the long Final Concurrence Window tunable parameter to 9 business hours

RR5-52 Short Final Concurrence Window Tunable - Tunable Parameter Default

NPAC SMS shall default the short Final Concurrence Window tunable parameter to 1 business hour

R5-23.4 New Service Provider Fails to Authorize Transfer of Service

DELETED

RR5-117 New Service Provider Final Create Window Expiration Notification

NPAC SMS shall upon expiration of the Final Concurrence Window, where a new Service Provider has not sent authorization for the transfer of service, send a notification to both the old Service Provider that supports the Final Create Window Expiration Notification and the new Service Provider that supports the Final Create Window Expiration Notification via the SOA-to-NPAC SMS Interface, to inform them of the timer expiration (Formerly NANC 240 Req 1)

RR5-118 New Service Provider Final Create Window Expiration Notification – Sending of Cause Code

NPAC SMS shall only send the Subscription Version Status Change Cause Code in the Final Create Window Expiration Notification when the old Service Provider authorization is **FALSE** (Formerly NANC 240 Req 2)

RR5-56 Create Inter-Service Provider Regular Port and Port-to-Original Port – NPAC and SOA After NPA-NXX-X Creation

NPAC SMS shall reject an inter-service provider Subscription Version Create message, in cases where the Code Holder SPID and the Block Holder SPID are NOT the same value and where there is no active subscription version for the requested TN in the NPAC SMS, or an inter-service provider Port-to-Original Subscription Version Create message, for a TN within the 1K Block, from NPAC Personnel, a Service Provider SOA via the SOA-to-NPAC SMS Interface, or Service Provider via the NPAC SOA Low-tech Interface, after the Creation of the NPA-NXX-X, and prior to the existence of the Block in the NPAC SMS (Previously SV-180)

RR5-57 Create Intra- or Inter-Service Provider Port-to-Original Subscription Version – After Block Activation

NPAC SMS shall validate that the New Service Provider is the Block Holder, in an intra-service provider port-to-original subscription version create message or inter-service provider port-to-original port for a TN within the 1K Block, once the Block exists in the NPAC SMS (Previously SV-190)

RR5-198 Create “Inter-Service Provider Port” Subscription Version – DPC-SSN Field-level Data Validation

NPAC SMS shall perform field-level data validations to ensure that the values for the following input data, if supplied, is valid according to the Service Provider DPC source data, when Creating Subscription Versions via the SOA Low-Tech Interface or NPAC Administrative Interface for an Inter-Service Provider port: (previously NANC 427, Req 4)

- Class DPC
- Class SSN
- LIDB DPC
- LIDB SSN
- CNAM DPC
- CNAM SSN
- ISVM DPC
- ISVM SSN
- WSMSC DPC
- WSMSC SSN

R5-23.5 Activation without Old Service Provider Authorization

NPAC SMS shall allow a pending Subscription Version to be activated without an old Service Provider authorization for transfer of service

R5-23.6 Activation without Old Service Provider Authorization - Time restriction

NPAC SMS shall allow activation without Old Service Provider concurrence only after the final concurrence window timer has expired

RR5-23.3 Old Service Provider Final Concurrence Timer Expiration Notification – Old SP

NPAC SMS shall upon expiration of the Final Concurrence Timer send a notification to the old service provider via the SOA-to-NPAC SMS interface to inform them of the timer expiration

RR5-184 Old Service Provider Final Concurrence Timer Expiration Notification – New SP

NPAC SMS shall upon expiration of the Final Concurrence Timer send a notification to the new service provider, based on the Subscription Version Old SP Final Concurrence Timer Expiration Notification priority setting, via the SOA-to-NPAC SMS interface to inform them of the timer expiration (previously NANC 441, Req 8)

5.1.2.2.1.2 Subscription Version Creation - Intra-Service Provider Port

This section provides the Subscription Version Creation requirements for performing an Intra-Service Provider port of a TN. An Intra-Service Provider port of a TN is when a TN is ported to a new location within the current Service Provider network (i.e., the routing data is modified, but the Service Provider remains the same). A “port to original” for an Intra-Service Provider port should be handled by submission of an Intra-Service Provider “port to original” subscription version request to the NPAC SMS.

RR5-4 Create “Intra-Service Provider Port” Subscription Version - Current Service Provider Input Data

NPAC SMS shall require the following data from the NPAC personnel or the Current (New) Service Provider at the time of Subscription Version Creation for an Intra-Service Provider port when **NOT** porting to original:

- LNP Type - port type This field must be set to “LISP for Intra-Service Provider support”
- Ported Telephone Number(s) - this entry can be a single TN or a continuous range of TNs that identifies a subscription or group of Subscription Versions that share the same attributes
- Due Date - date on which Intra-Service Provider port is planned to occur
- New facilities-based Service Provider ID - current Service Provider within which the Intra-Service Provider port will occur
- Old facilities-based Service Provider ID - current Service Provider within which the Intra-Service Provider port will occur
- Location Routing Number (LRN) - identifier of the ported-to switch
- Class DPC (optional for the XML interface)
- Class SSN (optional for the XML interface)
- LIDB DPC (optional for the XML interface)
- LIDB SSN (optional for the XML interface)
- CNAM DPC (optional for the XML interface)
- CNAM SSN (optional for the XML interface)
- ISVM DPC (optional for the XML interface)
- ISVM SSN (optional for the XML interface)
- WSMSC DPC (if supported by the Service Provider SOA), (optional for the XML interface)
- WSMSC SSN (if supported by the Service Provider SOA), (optional for the XML interface)
- Porting to Original – flag indicating whether or not this is a ‘porting-to-original’ port This flag must be set to “FALSE” for this type of Intra-Service Provider port
- SV Type (if supported by the Service Provider SOA)

RR5-122 Create “Intra-Service Provider porting to original Port” Subscription Version - New Service Provider Input Data

NPAC SMS shall require the following data from NPAC personnel or the new Service Provider upon Subscription Version creation for an Intra-Service Provider “porting to original” port:

- Local Number Portability Type - Port Type This field must be set to “LISP” for “Intra-Service Provider porting to original” ports
- Ported Telephone Number(s) - this entry can be a single TN or a continuous range of TNs that identifies a subscription or a group of Subscription Versions that share the same attributes
- Due Date - date on which Intra-Service Provider port is planned to occur
- New Facilities-based Service Provider ID – current Service Provider within which the Intra-Service Provider port will occur
- Old Facilities-based Service Provider ID – current Service Provider within which the Intra-Service Provider port will occur

Subscription Management

- Porting to original - flag indicating whether or not this is a “porting to original” port. This flag must be set to “TRUE” for “Intra-Service Provider porting to original” ports, and set to “FALSE” for other Intra-Service Provider ports.

(previously NANC 230 Req 1)

RR5-5 Create “Intra-Service Provider Port” (non-PTO) Subscription Version - Current Service Provider Optional Input Data

NPAC SMS shall accept the following optional fields from the NPAC personnel or the Current Service Provider upon a Subscription Version Creation for an Intra-Service Provider port, when the Porting to Original flag is set to False: (reference NANC 399)

- Billing Service Provider ID
- End-User Location - Value
- End-User Location – Type
- Alternative SPID (if supported by the Service Provider SOA)
- Last Alternative SPID (if supported by the Service Provider SOA)
- Alt-End User Location Value (if supported by the Service Provider SOA)
- Alt-End User Location Type (if supported by the Service Provider SOA)
- Alt-Billing ID (if supported by the Service Provider SOA)
- Voice URI (if supported by the Service Provider SOA)
- MMS URI (if supported by the Service Provider SOA)
- SMS URI (if supported by the Service Provider SOA)

RR5-180 Create “Intra-Service Provider Port” (PTO) Subscription Version – Current Service Provider Data Attributes – Rejected

NPAC SMS shall reject an Intra-Service Provider Create Request that includes the following data attributes from NPAC personnel or the Current Service Provider, when the Porting to Original flag is set to True: (reference NANC 399)

- LRN
- Class DPC
- Class SSN
- LIDB DPC
- LIDB SSN
- CNAM DPC
- CNAM SSN
- ISVM DPC
- ISVM SSN
- WSMSC DPC (if supported by the Service Provider SOA)
- WSMSC SSN (if supported by the Service Provider SOA)
- Porting to Original
- Billing Service Provider ID
- End-User Location - Value
- End-User Location – Type
- SV Type
- Alternative SPID

RR5-6.1 Create “Intra-Service Provider Port” Subscription Version - Field-level Data Validation

NPAC SMS shall perform field-level data validations to ensure that the value formats for the following input data, if supplied, is valid according to the formats specified in Table 3-6 upon Subscription Version creation for an Intra-Service Provider port: (reference NANC 399)

- LNP Type
- Ported TN(s)
- Current Service Provider Due Date
- Old Service Provider ID
- New Service Provider ID
- LRN
- Class DPC
- Class SSN
- LIDB DPC
- LIDB SSN
- CNAM DPC
- CNAM SSN
- ISVM DPC
- ISVM SSN
- WSMSC DPC (if supported by the Service Provider SOA)
- WSMSC SSN (if supported by the Service Provider SOA)
- Porting to Original
- Billing Service Provider ID
- End-User Location - Value
- End-User Location - Type
- SV Type (if supported by the Service Provider SOA)
- Alternative SPID (if supported by the Service Provider SOA)
- Last Alternative SPID (if supported by the Service Provider SOA)
- Alt-End User Location Value (if supported by the Service Provider SOA)
- Alt-End User Location Type (if supported by the Service Provider SOA)
- Alt-Billing ID (if supported by the Service Provider SOA)
- Voice URI (if supported by the Service Provider SOA)
- MMS URI (if supported by the Service Provider SOA)
- SMS URI (if supported by the Service Provider SOA)

RR5-6.2 Create “Intra-Service Provider Port” Subscription Version - New and Old Service Provider ID Match

NPAC SMS shall validate that the new and old Service Provider IDs are identical to the ID of the requesting user at the time of Subscription Version creation for an Intra-Service Provider port

RR5-6.3 Create “Intra-Service Provider Port” Subscription Version - Due Date Validation

DELETED

RR5-133 Create “Intra-Service Provider Port” Subscription Version - Due Date Validation For First Port

DELETED

Subscription Management

RR5-134 Create “Intra-Service Provider Port” Subscription Version - Due Date Validation For Subsequent Port Within the NPA-NXX-X Holder Information Effective Date Window– Tunable Window

DELETED

RR5-6.4 Create “Intra-Service Provider Port” Subscription Version - Ported TN NPA-NXX Validation

NPAC SMS shall verify that the NPA-NXX for the TN to be ported exists as an NPA-NXX in the NPAC SMS system upon Subscription Version creation for an Intra-Service Provider port

RR5-45 Create “Intra-Service Provider Port” Subscription Version – Due Date Validation for NPA-NXX effective date

DELETED

RR5-6.5 Create “Intra-Service Provider Port” Subscription Version - LRN Validation

NPAC SMS shall verify that the LRN (excluding pseudo-LRN) is associated with the new Service Provider in the NPAC SMS system upon Subscription Version creation for an Intra-Service Provider port

RR5-6.6 Create “Intra-Service Provider Port” Subscription Version - Duplicate Authorization Validation

NPAC SMS shall verify that the authorization for transfer of service for a given Service Provider does not already exist when a Service Provider creates a Subscription Version for an Intra-Service Provider port

RR5-6.7 Create “Intra-Service Provider Port” Subscription Version - Old Service Provider ID Validation

NPAC SMS shall verify that the old Service Provider ID on the version being created is equal to the new Service Provider ID on the active Subscription Version, if an active version exists, upon Subscription Version creation for an Intra-Service Provider port

RR5-6.8 Create “Intra-Service Provider Port” Subscription Version - No Active Version

NPAC SMS shall allow an Intra-Service Provider port to occur for a telephone number not associated with a current active version

RR5-6.9 Create “Intra-Service Provider Port” Subscription Version - Old Service Provider ID Validation - No Active Subscription Version

NPAC SMS shall validate that the old Service Provider in the create message is the Service Provider to which the TN's NPA-NXX is assigned (as stored in the NPAC SMS service provider data tables) if there is currently no active Subscription Version for the TN in the NPAC SMS

RR5-7.1 Create “Intra-Service Provider Port” Subscription Version - Validation Failure Notification

NPAC SMS shall send an appropriate error message to the originating NPAC personnel or SOA-to-NPAC SMS Interface if any of the validations fail at the time of Subscription Version creation for an Intra-Service Provider port

Subscription Management

RR5-7.2 Create “Intra-Service Provider Port” Subscription version - Validation Failure - No Create

NPAC SMS shall not create a new Subscription Version if any of the validations fail at the time of Subscription Version creation for an Intra-Service Provider port

RR5-8 Create “Intra-Service Provider Port” Subscription version - Set to Pending

NPAC SMS shall set a Subscription Version to pending upon successful creation of a Subscription Version for an Intra-Service Provider port

RR5-9 Create “Intra-Service Provider Port” Subscription version - Notify User of Creation

NPAC SMS shall notify the current Service Provider when a Subscription Version is set to pending upon a successful creation of a Subscription Version for an Intra-Service Provider port

RR5-58 Create Intra-Service Provider Port – NPAC Personnel After NPA-NXX-X Creation

NPAC SMS shall allow NPAC personnel to create intra-service provider ports for a TN within the 1K Block, after the Creation of the NPA-NXX-X and up to the NPA-NXX-X's Effective Date, only where the new/old Service Provider is the Code Holder SPID, and a previously active SV does NOT exist in the NPAC SMS (Previously SV-160)

RR5-59 Create Intra-Service Provider Port – SOA After NPA-NXX-X Creation

NPAC SMS shall reject an intra-service provider Subscription Version Create message for a TN within the 1K Block, from a Service Provider SOA via the SOA-to-NPAC SMS Interface, or Service Provider via the NPAC SOA Low-tech Interface, after the Creation of the NPA-NXX-X Information, and a previously active SV does NOT exist in the NPAC SMS in cases where the Code Holder SPID and the Block Holder SPID are NOT the same value (Previously SV-170)

RR5-121 Create Intra-Service Provider Port-to-Original Port – NPAC and SOA After NPA-NXX-X Creation

NPAC SMS shall reject an intra-service provider Port-to-Original Subscription Version Create message for a TN within the 1K Block, from NPAC Personnel, a Service Provider SOA via the SOA-to-NPAC SMS Interface, or Service Provider via the NPAC SOA Low-tech Interface, after the Creation of the NPA-NXX-X, and prior to the existence of the Block in the NPAC SMS in cases where the Code Holder SPID and the Block Holder SPID are NOT the same value (previously NANC 230 Req 2)

RR5-218 No Create for Non-Active TN – NPAC Personnel or Service Provider while Block contains a Failed SP List

NPAC SMS shall reject an inter-service provider or intra-service provider Subscription Version Create message for a TN within the 1K Block, from NPAC Personnel, a Service Provider SOA via the SOA-to-NPAC SMS Interface, or Service Provider via the NPAC SOA Low-tech Interface, when no currently active Subscription Version exists for the TN and the Block contains a Failed SP List (previously NANC 446, Req new2)

Note: This requirement includes create for a TN that does not contain an associated pooled SV or a previously ported and still active SV (for that same TN) Other activities (modify-pending, conflict, cancel, or activate) are allowed A Block will contain a Failed SP List when the status is Sending, Failed, Partial Failure, Active with a Failed List, or Old with a Failed List

RR5-185 Create Intra-Service Provider Port – Medium Timers

NPAC SMS shall accept an intra-service provider Subscription Version Create message from NPAC Personnel or the Current (New) Service Provider, for a Service Provider that supports the New SP/Old SP Medium Timer Indicator, if any of the following attributes are specified: (previously NANC 441, Req 1)

- New SP Medium Timer Indicator – this attribute is ignored
- Old SP Medium Timer Indicator – this attribute is ignored

RR5-199 Create “Intra-Service Provider Port” Subscription Version – DPC-SSN Field-level Data Validation

NPAC SMS shall perform field-level data validations to ensure that the values for the following input data, if supplied, is valid according to the Service Provider DPC-SSN source data, when Creating Subscription Versions via the SOA Low-Tech Interface or NPAC Administrative Interface for an Intra-Service Provider port: (previously NANC 427 Req 5)

- Class DPC
- Class SSN
- LIDB DPC
- LIDB SSN
- CNAM DPC
- CNAM SSN
- ISVM DPC
- ISVM SSN
- WSMSC DPC
- WSMSC SSN

RR5-203 Create “Intra-Service Provider Port” Subscription Version – Service Provider Tunable Value of TRUE for Pseudo-LRN Request

NPAC SMS shall accept a Subscription Version Create request for a pseudo-LRN record from a Service Provider SOA only when the NPAC Customer SOA Pseudo-LRN Indicator is set to TRUE (previously NANC 442 Req 25)

NOTE: The Intra-Service Provider Port for a pseudo-LRN request cannot involve movement of the telephone number to another switch

RR5-204 Create “Intra-Service Provider Port” Subscription Version – Rejection of Pseudo-LRN Request for Active Inter- or Intra-Subscription Version with Active LRN

NPAC SMS shall reject a Subscription Version Create request for a pseudo-LRN record from a Service Provider SOA when an active Inter- or Intra-Subscription Version with an active LRN exists for that TN (previously NANC 442 Req 53)

RR5-205 Create “Intra-Service Provider Port” Subscription Version – Rejection of Pseudo-LRN Request for NPA-NXX-X

NPAC SMS shall reject a Subscription Version Create request for a pseudo-LRN record from a Service Provider SOA when an NPA-NXX-X with a pending or active Number Pool Block that contains an active-LRN exists for that TN (previously NANC 442 Req 27)

Note: SV Create for a pseudo-LRN record within an NPA-NXX-X with a pending or active Number Pool Block that contains a pseudo-LRN is allowed

Subscription Management

RR5-206 Create “Intra-Service Provider Port” Subscription Version - Notify User of Creation of Pseudo-LRN Record

NPAC SMS shall notify the current Service Provider when a Subscription Version is set to pending upon a successful creation of a Subscription Version for an Intra-Service Provider port of a pseudo-LRN record only if the NPAC Customer SOA Pseudo-LRN Notification Indicator is set to TRUE (previously NANC 442 Req 28)

5.1.2.2.2 Subscription Version Modification

This section provides the requirements for the Subscription Version Modification functionality, which is executed upon the user requesting modify Subscription Version

RR5-123 Validation of LATA ID for Subscription Version Modifies

NPAC shall reject Subscription Version Modify Requests if the NPA-NXX of the TN and the NPA-NXX of the LRN have different LATA IDs (previously NANC 319 Req 7)

R5-25 Modify Subscription Version - Invalid Version Status Notification

NPAC SMS shall return an error to the originating NPAC personnel or NPAC SOA Low-tech Interface users, or SOA-to-NPAC SMS interface user if the version status is sending, failed, partial failure, canceled, active with a Failed SP List or old upon Subscription Version modification

RR5-200 Modify “Inter-Service Provider Port” Subscription Version – DPC-SSN Field-level Data Validation

NPAC SMS shall perform field-level data validations to ensure that the values for the following input data, if supplied, is valid according to the Service Provider DPC-SSN source data, when Modifying Subscription Versions via the SOA Low-Tech Interface or NPAC Administrative Interface for an Inter-Service Provider port: (previously NANC 427 Req 6 1)

- Class DPC
- Class SSN
- LIDB DPC
- LIDB SSN
- CNAM DPC
- CNAM SSN
- ISVM DPC
- ISVM SSN
- WSMSC DPC
- WSMSC SSN

RR5-201 Modify “Intra-Service Provider Port” Subscription Version – DPC-SSN Field-level Data Validation

NPAC SMS shall perform field-level data validations to ensure that the values for the following input data, if supplied, is valid according to the Service Provider DPC-SSN source data, when Modifying Subscription Versions via the SOA Low-Tech Interface or NPAC Administrative Interface for an Intra-Service Provider port: (previously NANC 427 Req 6 2)

- Class DPC
- Class SSN
- LIDB DPC
- LIDB SSN
- CNAM DPC
- CNAM SSN

Subscription Management

- ISVM DPC
- ISVM SSN
- WSMSC DPC
- WSMSC SSN

RR5-202 Modify Subscription Version – Validation of DPC-SSNs for Subscription Version Creates

NPAC shall reject New Service Provider Subscription Version Modify requests from the SOA Low-Tech Interface or NPAC Administrative Interface if a DPC-SSN is specified and a valid DPC-SSN reference does not exist in the Service Provider DPC source data (previously NANC 427 Req 6 3)

RR5-207 Modify “Intra-Service Provider Port” Subscription Version – Service Provider Tunable Value of TRUE for Pseudo-LRN Request

NPAC SMS shall accept a pending or active Subscription Version Modify request for a pseudo-LRN record from a Service Provider SOA only when the NPAC Customer SOA Pseudo-LRN Indicator is set to TRUE (previously NANC 442 Req 75)

5.1.2.2.2.1 Modification of a Pending or Conflict Subscription Version

R5-26 Modify Subscription Version - Version Identification

NPAC SMS shall receive the following data from the originating NPAC personnel or SOA-to-NPAC SMS interface user to identify a pending or conflict Subscription Version to be modified:

Ported Telephone Number (or a specified range of numbers) and status
or
Subscription Version ID

RR5-186 Modify Subscription Version – New Service Provider – Medium Timers

NPAC SMS shall accept a pending Subscription Version Modify message from NPAC Personnel or the New Service Provider that includes the New SP Medium Timer Indicator until the NPAC SMS has successfully processed the Old SP Subscription Version create message (previously NANC 441, Req 2)

R5-27.1 Modify Subscription Version - New Service Provider Data Values

NPAC SMS shall allow the following data to be modified in a pending or conflict Subscription Version for an Inter-Service Provider or Intra-Service Provider port by the new/current Service Provider or NPAC personnel: (reference NANC 399)

- Location Routing Number (LRN) - the identifier of the ported to switch (excluding setting or removing a pseudo-LRN)
- Due Date - date on which transfer of service from old facilities-based Service Provider to new facilities-based Service Provider is planned to occur
- Class DPC
- Class SSN
- LIDB DPC
- LIDB SSN
- CNAM DPC
- CNAM SSN
- ISVM DPC
- ISVM SSN
- WSMSC DPC (if supported by the Service Provider SOA)

Subscription Management

- WSMSC SSN (if supported by the Service Provider SOA)
- SV Type (if supported by the Service Provider SOA)
- Alternative SPID (if supported by the Service Provider SOA)
- Last Alternative SPID (if supported by the Service Provider SOA)
- Alt-End User Location Value (if supported by the Service Provider SOA)
- Alt-End User Location Type (if supported by the Service Provider SOA)
- Alt-Billing ID (if supported by the Service Provider SOA)
- Voice URI (if supported by the Service Provider SOA)
- MMS URI (if supported by the Service Provider SOA)
- SMS URI (if supported by the Service Provider SOA)
- New SP Medium Timer Indicator (if supported by the Service Provider SOA)

R5-27.2 Modify “porting to original” Subscription Version - New Service Provider Data Values

NPAC SMS shall allow the following data to be modified in a pending, or conflict Subscription Version for a “porting to original” port by the new Service Provider or NPAC personnel:

- Due Date - New Service Provider date on which “port to original” is planned to occur
- New SP Medium Timer Indicator (if supported by the Service Provider SOA)

RR5-187 Modify Subscription Version – Old Service Provider – Medium Timers

NPAC SMS shall accept a pending or conflict Subscription Version Modify message from NPAC Personnel or the Old Service Provider that includes the Old SP Medium Timer Indicator until the NPAC SMS has successfully processed the Subscription Version activate message from the New Service Provider (previously NANC 441, Req 2 1)

R5-27.3 Modify Subscription Version - Old Service Provider Data Values

NPAC SMS shall allow the following data to be modified in a pending or conflict Subscription Version for an Inter-Service Provider port by the old Service Provider or NPAC personnel:

- Due Date - date on which transfer of service from old facilities-based Service Provider to new Service Provider is planned to occur
- Old Service Provider Authorization
- Status Change Cause Code
- Old SP Medium Timer Indicator (if supported by the Service Provider SOA)

R5-27.4 Old Service Provider authorization Flag Modification to False

NPAC SMS shall allow the old Service Provider to modify the old Service Provider authorization flag to false and set the cause code

NOTE: As a result the NPAC SMS will set the Subscription Version status to conflict provided the version has not previously been set into conflict by the Old Service Provider for reasons other than cancellation

R5-28 Modify (non-PTO) Subscription Version - New Service Provider Optional input data

NPAC SMS shall accept the following optional fields from the NPAC personnel or the new Service Provider upon modification of a pending or conflict Subscription version, when the Porting to Original flag is set to False: (reference NANC 399)

- Billing Service Provider ID
- End-User Location - Value

Subscription Management

- End-User Location – Type
- Alternative SPID (if supported by the Service Provider SOA)
- Last Alternative SPID (if supported by the Service Provider SOA)
- Alt-End User Location Value (if supported by the Service Provider SOA)
- Alt-End User Location Type (if supported by the Service Provider SOA)
- Alt-Billing ID (if supported by the Service Provider SOA)
- Voice URI (if supported by the Service Provider SOA)
- MMS URI (if supported by the Service Provider SOA)
- SMS URI (if supported by the Service Provider SOA)

RR5-181 Modify (PTO) Subscription Version – New Service Provider Optional input data

NPAC SMS shall accept the following optional fields from the NPAC Personnel or the new Service Provider, when the Porting to Original flag is set to True, upon modification of a pending or conflict subscription version:

- Billing Service Provider ID
- End-User Location - Value
- End-User Location - Type

R5-29.1 Modify Subscription Version - Field-level Data Validation

NPAC SMS shall perform field-level data validations to ensure that the value formats for the following input data, if supplied, is valid according to the formats specified in Table 3-6 upon Subscription Version modification (reference NANC 399)

- LNP Type
- Ported TN(s)
- Old Service Provider Due Date
- New Service Provider Due Date
- Old Service Provider Authorization
- Status Change Cause Code
- Old Service Provider ID
- New Service Provider ID
- LRN (excluding setting or removing a pseudo-LRN)
- Class DPC
- Class SSN
- LIDB DPC
- LIDB SSN
- CNAM DPC
- CNAM SSN
- ISVM DPC
- ISVM SSN
- WSMSC DPC
- WSMSC SSN
- Billing Service Provider ID
- End-User Location - Value
- End-User Location - Type
- SV Type (if supported by the Service Provider SOA)
- Alternative SPID (if supported by the Service Provider SOA)
- Last Alternative SPID (if supported by the Service Provider SOA)
- Alt-End User Location Value (if supported by the Service Provider SOA)
- Alt-End User Location Type (if supported by the Service Provider SOA)

Subscription Management

- Alt-Billing ID (if supported by the Service Provider SOA)
- Voice URI (if supported by the Service Provider SOA)
- MMS URI (if supported by the Service Provider SOA)
- SMS URI (if supported by the Service Provider SOA)
- New SP Medium Timer Indicator (if supported by the New Service Provider SOA)
- Old SP Medium Timer Indicator (if supported by the Old Service Provider SOA)

R5-29.2 Modify Subscription Version - Due Date Validation

DELETED

RR5-135 Modify Subscription Version - Due Date Validation For Port Within the NPA-NXX-X Holder Information Effective Date Window–Tunable Window

DELETED

RR5-163 Modification of Subscription Version Due Date – Validation

NPAC SMS shall verify that the Due Date is equal to, or greater than, the NPA-NXX Live TimeStamp, and equal to or greater than the current date, when modifying a Subscription Version (previously NANC 394, Req 7)

RR5-54 Modify Subscription Version - Due Date Validation for NPA-NXX Effective Date

DELETED

R5-29.3 Modify Subscription Version - LRN Validation

NPAC SMS shall verify that an input LRN is associated with the new Service Provider in the NPAC SMS system upon Subscription Version modification

R5-29.4 Modify Subscription Version - Originating Service Provider Validation

NPAC SMS shall verify that the originating user is identified as the new or old Service Provider on the current Subscription Version, if one exists, upon Subscription Version modification

R5-29.5 Modify Subscription Version - Status Change Cause Code Validation

NPAC SMS shall require and only allow the Status Change Cause Code to be set when the Old Service Provider authorization is set to false

RR5-188 Modify Subscription Version – Medium Timers – Timer Type Change

NPAC SMS shall upon receiving a Subscription Version Modify message from the Old or New Service Provider that modifies the New SP Medium Timer Indicator or the Old SP Medium Timer Indicator and causes a change in the Subscription Version Timer Type, delete any existing T1/T2 timer (previously NANC 441, Req 2 2)

RR5-189 Modify Subscription Version – Medium Timers – Restart T1 Timer

NPAC SMS shall upon receiving a Subscription Version Modify message from the Old or New Service Provider that modifies the New SP Medium Timer Indicator or the Old SP Medium Timer Indicator and causes a change in the Subscription Version Timer Type, restart a new T1 timer in cases where the NPAC has not received a create from both providers (previously NANC 441, Req 2 3)

Subscription Management

R5-30.1 Modify Subscription Version - Validation Failure Notification

NPAC SMS shall send an error message to the originating user if the modified pending or conflict Subscription Version fails validations

R5-30.2 Modify Subscription Version - Validation Error Processing

NPAC SMS shall leave the original version intact upon validation failure of a modified pending or conflict Subscription Version

R5-31.3 Modify Subscription Version - Successful Modification Notification

NPAC SMS shall send an appropriate message to the old and new Service Providers upon successful modification of a Subscription Version

Note: Pending Subscription Version notifications for pseudo-LRN are only sent if the NPAC Customer SOA Pseudo-LRN Indicator is set to TRUE and the NPAC Customer SOA Pseudo-LRN Notification Indicator is set to TRUE

RR5-208 Modify “Intra-Service Provider Port” Subscription Version – Send Notification of Modification of Active Pseudo-LRN Record

NPAC SMS shall send a notification to the current Service Provider when a Subscription Version is set to active upon modification of a Subscription Version for an Intra-Service Provider port of a pseudo-LRN record only if the NPAC Customer SOA Pseudo-LRN Indicator is set to TRUE and the NPAC Customer SOA Pseudo-LRN Notification Indicator is set to TRUE (previously NANC 442, Req 76)

RR5-10.1 Modify Subscription Version - Set Conflict Timestamp

NPAC SMS shall set the conflict timestamp to the current time when a Subscription Version is set to conflict upon Subscription Version modification

RR5-10.2 Modify Subscription Version - Conflict Notification

NPAC SMS shall notify the Old and New Service Provider when a Subscription Version is set to conflict upon Subscription Version modification

RR5-10.3 Modify Subscription Version - Cause Code in Notification

NPAC SMS shall include the cause code for conflict in the conflict notification to the Old and New Service Provider when a Subscription Version is set to conflict upon Subscription Version modification

5.1.2.2.2.2 Modification of an Active/Disconnect Pending Subscription Version

RR5-136 Modify Active Subscription Version with a Failed-SP List – Invalid Request Notification

NPAC SMS shall send an appropriate error message to the originating user if the Failed-SP list contains any entries upon a request to modify an “active” subscription version

RR5-11 Modify Active/Disconnect-Pending Subscription Version - Service Provider Owned

NPAC SMS shall allow only NPAC personnel and the current Service Provider to modify their own active/disconnect-pending Subscription Versions

R5-35 Modify Active Subscription Version - Version Identification

NPAC SMS shall require the following data from NPAC personnel or SOA-to-NPAC SMS interface users to identify the active Subscription Version to be modified:

Ported Telephone Numbers (or a specified range of numbers) and status of Active
or
Subscription Version ID

R5-36 Modify Active Subscription Version - Input Data

NPAC SMS shall allow the following data to be modified for an active Subscription Version: (reference NANC 399)

- Location Routing Number (LRN) - the identifier of the ported to switch (excluding setting or removing a pseudo-LRN)
- Class DPC
- Class SSN
- LIDB DPC
- LIDB SSN
- CNAM DPC
- CNAM SSN
- ISVM DPC
- ISVM SSN
- WSMSC DPC (if supported by the Service Provider SOA)
- WSMSC SSN (if supported by the Service Provider SOA)
- SV Type (if supported by the Service Provider SOA)
- Alternative SPID (if supported by the Service Provider SOA)
- Last Alternative SPID (if supported by the Service Provider SOA)
- Alt-End User Location Value (if supported by the Service Provider SOA)
- Alt-End User Location Type (if supported by the Service Provider SOA)
- Alt-Billing ID (if supported by the Service Provider SOA)
- Voice URI (if supported by the Service Provider SOA)
- MMS URI (if supported by the Service Provider SOA)
- SMS URI (if supported by the Service Provider SOA)

R5-37 Active Subscription Version - New Service Provider Optional input data.

NPAC SMS shall accept the following optional fields from the new Service Provider or NPAC personnel for an active Subscription Version to be modified:

- Billing Service Provider ID
- End-User Location - Value
- End-User Location - Type
- Alternative SPID (if supported by the Service Provider SOA)
- Last Alternative SPID (if supported by the Service Provider SOA)
- Alt-End User Location Value (if supported by the Service Provider SOA)
- Alt-End User Location Type (if supported by the Service Provider SOA)
- Alt-Billing ID (if supported by the Service Provider SOA)
- Voice URI (if supported by the Service Provider SOA)
- MMS URI (if supported by the Service Provider SOA)
- SMS URI (if supported by the Service Provider SOA)

R5-38.1 Modify Active Subscription Version - Field-level Data Validation

NPAC SMS shall perform field-level data validations to ensure that the value formats for the following input data, if supplied, is valid according to the formats specified in Table 3-6 upon Subscription Version modification of an active version: (reference NANC 399)

- LRN
- Class DPC
- Class SSN
- LIDB DPC
- LIDB SSN
- CNAM DPC
- CNAM SSN
- ISVM DPC
- ISVM SSN
- WSMSC DPC (if supported by the Service Provider SOA)
- WSMSC SSN (if supported by the Service Provider SOA)
- Billing Service Provider ID
- End-User Location - Value
- End-User Location - Type
- SV Type (if supported by the Service Provider SOA)
- Alternative SPID (if supported by the Service Provider SOA)
- Last Alternative SPID (if supported by the Service Provider SOA)
- Alt-End User Location Value (if supported by the Service Provider SOA)
- Alt-End User Location Type (if supported by the Service Provider SOA)
- Alt-Billing ID (if supported by the Service Provider SOA)
- Voice URI (if supported by the Service Provider SOA)
- MMS URI (if supported by the Service Provider SOA)
- SMS URI (if supported by the Service Provider SOA)

R5-38.2 Modify Active Subscription Version - LRN Validation

NPAC SMS shall verify that an input LRN (excluding pseudo-LRN, which cannot be modified) is associated with the new Service Provider in the NPAC SMS system upon Subscription Version modification of an active version

RR5-124 Modify Disconnect Pending Subscription Version - Input Data

NPAC SMS shall allow the following data to be modified for a disconnect pending Subscription Version:

- Customer Disconnect Date
- Effective Release Date

(previously NANC 249 Req 1)

RR5-125 Modify Disconnect Pending Subscription Version - Field-level Data Validation

NPAC SMS shall perform field-level data validations to ensure that the value formats for the following input data, if supplied, is valid according to the formats specified in Table 3-6 upon Subscription Version modification of a disconnect pending version:

- Customer Disconnect Date
- Effective Release Date

(previously NANC 249 Req 2)

Subscription Management

RR5-126 Modify Disconnect Pending Subscription Version – Valid Dates for CDD and ERD

NPAC SMS shall allow a Subscription Version Modify Disconnect Pending Request, to contain date/time values in the past for the Customer Disconnect Date and Effective Release Date (previously NANC 249 Req 6)

RR5-127 Modify Disconnect Pending Subscription Version - Version Identification

NPAC SMS shall require the following data from NPAC personnel, NPAC SOA Low-tech Interface users, or SOA-to-NPAC SMS interface users to identify the disconnect pending Subscription Version to be modified:

- Ported Telephone Numbers (or a specified range of numbers) and status of Disconnect Pending
or
- Subscription Version ID
(previously NANC 249 Req 3)

RR5-128 Modify Disconnect Pending Subscription Version – Rejection for Empty CDD

NPAC SMS shall reject a Subscription Version Modify Disconnect Pending Request, if the new value for the Customer Disconnect Date is not populated (previously NANC 249 Req 5)

Note: If changing the Customer Disconnect Date, the date must be populated in the message that is sent to the NPAC. If the SOA is not changing the date, the date must still be sent to the NPAC in the Modify Disconnect Pending Request with the same/current value

Note: In the case where a SOA is modifying a range of disconnect-pending Subscription Versions that have different CDD or ERD values, all of the Subscription Versions in that range will be updated to the same CDD or ERD value, even though they previously had different values

RR5-39.1 Modify Active/Disconnect Pending Subscription Version - Validation Failure Notification

NPAC SMS shall send an appropriate error message to the originating user if the modified active/disconnect pending Subscription Version fails validations

RR5-39.2 Modify Active/Disconnect Pending Subscription Version - Validation Error Processing

NPAC SMS shall leave the original version intact upon validation failure of a modified active/disconnect pending Subscription Version

RR5-46 Modify Active Subscription Version- Creation of Old Subscription Version

DELETED

RR5-47 Modify Active Subscription Version- Old Subscription Version No Broadcast

DELETED

R5-40.1 Modify Active Subscription Version - Broadcast Date/Time Stamp

NPAC SMS shall record the current date and time as the broadcast date and time stamp upon initiation of broadcasting of the modified active Subscription Version

R5-40.3 Modify Active Subscription Version - Modification Success User Notification

NPAC SMS shall notify the originating user indicating successful modification of an active Subscription Version

Subscription Management

RR5-40.4 Modify Active Subscription Version - Broadcast complete Time Stamp

NPAC SMS shall record the current date and time as the Broadcast Complete Date and Time Stamp, after one Local SMS has successfully acknowledged modifying the new Subscription Version

RR5-41 Activation Of A Modified Subscription Version

NPAC SMS shall proceed with the broadcast modified active subscription process upon successful modification of an active Subscription Version

RR5-129 Activation Of A Modified Disconnect Pending Subscription Version when ERD is Modified to Current Date

NPAC SMS shall proceed with the broadcast immediate disconnect subscription process upon successful modification of a disconnect pending Subscription Version, only in cases where the Effective Release Date has been modified to the current date/time or previous date/time, in the NPAC SMS (previously NANC 249 Req 4)

Note: If the ERD is set to a future date/time, the NPAC SMS will not broadcast any updates at the time of modification. The disconnect broadcast will occur once the future date/time has been reached in the NPAC SMS

RR5-41.1 Broadcast Modified Active Subscription - Local SMS Identification

NPAC SMS shall determine which Local SMSs to send the Subscription Version to by identifying all Local SMSs that are accepting Subscription version data downloads for the given NPA-XXX

RR5-41.2 Broadcast Modified Active Subscription - Send to Local SMSs

NPAC SMS shall send the modified Subscription version via the NPAC SMS-to-Local SMS Interface to the Local SMSs

RR5-41.3 Broadcast Modified Active Subscription - Set to Sending

NPAC SMS shall set the Subscription Version status to sending upon sending the Subscription version to the Local SMSs

RR5-41.4 Modify Active Subscription Version - Return Status

NPAC SMS shall upon completion of the broadcast (failed or successful) return the status of the modified active subscription to its previous state

RR5-41.5 Modify Active Subscription Activation Retry Attempts - Tunable Parameter

NPAC SMS shall use the Subscription Modification Retry Attempts tunable parameter which defines the number of times a new Subscription Version will be sent to a Local SMS which has not acknowledged receipt of the modify request

RR5-41.6 Modify Active Subscription Activation Retry Interval - Tunable Parameter

NPAC SMS shall use the Subscription Modification Retry Interval tunable parameter, which defines the delay between sending new Subscription Versions to a Local SMS that has not acknowledged receipt of the modify request

Subscription Management

RR5-41.7 Modify Active Subscription Version Failure Retry

NPAC SMS shall resend the modified Subscription Version a Subscription Modification Retry Attempts tunable parameter number of times to a Local SMS that has not acknowledged the receipt of the modification request once the Subscription Activation Retry Interval tunable parameter expires

RR5-41.8 Modify Active Subscription Version Failure - Status Sending

NPAC SMS shall retain the status for the Subscription Version being modified as sending until the earlier of the Subscription Version retry period has expired for all Local SMSs, or until all Local SMSs have acknowledged the modification.

RR5-41.9 Modify Active Subscription Version Failure - Local SMS Identification

NPAC SMS shall notify the NPAC SMS Administrator of all Local SMSs where a modify has failed, once each Local SMS has successfully responded or failed to respond during the modification retry period

RR5-41.10 Subscription Version Activation - Resend to Failed Local SMSs

NPAC SMS shall provide NPAC SMS personnel with the functionality to re-send modify active Subscription Version requests to all failed Local SMSs

RR5-41.11 Modify Active Subscription Version - Failed Local SMS Notification Current Service Provider

NPAC SMS shall send a list to the Current Service Provider of all Local SMSs that failed modification when a Subscription Version modify active fails

5.1.2.2.3 Subscription Version Conflict

This section provides the requirements for the functionality to place a Subscription Version in to conflict and remove it from conflict

NOTE: *An old Service Provider can place a subscription version in conflict by setting the authorization flag to "False", as noted in requirement R5-27.4*

5.1.2.2.3.1 Placing a Subscription Version in Conflict

R5-42 Conflict Subscription Version - Version Identification

NPAC SMS shall require the following data from NPAC personnel or Old Service Provider to identify the Subscription Version to be placed in conflict:

Ported Telephone Number (or a specified range of numbers)
or
Subscription Version ID

R5-43.1 Conflict Subscription Version - Invalid Status Notification

NPAC SMS shall send an error message to the NPAC personnel or old Service Provider if the version status is not pending or cancel pending upon attempting to set the Subscription Version to conflict

R5-43.2 Conflict Subscription Version - No Cause Code Notification

NPAC SMS shall send an error message to the SOA if the cause code is not specified upon setting the Subscription Version to conflict

Subscription Management

RR5-42.1 Conflict Subscription Version - Old Service Provider Number Restriction

NPAC SMS shall only allow a subscription version to be placed into conflict by the Old Service provider one time, which includes the changing of the cause code on a subscription version

RR5-42.2 Conflict Subscription Version - Conflict Restriction Window

NPAC SMS shall provide a Conflict Restriction Tunable which is defined as the time on the business day prior to the New Service Provider due date that a pending Subscription Version **can no longer** be placed into conflict state by the old Service Provider

RR5-50 Conflict Subscription Version - Conflict Restriction Window- Old Service Provider

NPAC SMS shall provide a Conflict Restriction Window that restricts an Old Service Provider from putting a Subscription Version into Conflict

RR5-51 Conflict Subscription Version – Conflict Restriction Rules for Old Service Provider

NPAC SMS shall restrict a Subscription Version from being placed into Conflict by the Old Service Provider, when the Conflict Restriction Window Tunable Time is reached AND the Final Concurrence Timer (T2) has expired

AR5-2 Conflict Restriction Window Tunable due date value

The date used for the Conflict Restriction Window Tunable calculation relies on the date value specified in the New Service Provider due date

RR5-42.3 Conflict Subscription Version - Conflict Restriction Window Tunable

NPAC SMS shall allow the NPAC SMS Administrator to modify the Conflict Restriction Window Tunable parameter

RR5-42.4 Conflict Subscription Version - Conflict Restriction Window Tunable Default

NPAC SMS shall default the Conflict Restriction Window Tunable parameter to 17 00/18:00 UTC, adjusted for Standard/Daylight time changes

RR5-42.5 Conflict Subscription Version – Short Timer Usage

NPAC SMS shall not apply the Conflict Restriction Window Tunable to subscription versions being ported using short timers

R5-44.1 Conflict Subscription Version - Set Status to Conflict

NPAC SMS shall, upon placing a Subscription Version into conflict, set the version status to conflict

R5-44.2 Conflict Subscription Version - Set Conflict Date and Time

NPAC SMS shall, upon placing a Subscription Version into conflict, record the current date and time as the conflict date and time stamp

R5-44.3 Conflict Subscription Version - Successful Completion Message

NPAC SMS shall issue an appropriate message to the originating user and the Old and New Service Providers indicating successful completion of the process to place a subscription in conflict

Subscription Management

R5-45.1 Conflict Expiration Window - Tunable Parameter

NPAC SMS shall provide a Conflict Expiration Window tunable parameter which is defined as a number of calendar days a Subscription Version will remain in conflict prior to cancellation

R5-45.2 Conflict Expiration Window - Tunable Parameter Default

NPAC SMS shall default the Conflict Expiration Window tunable parameter to 30 calendar days

R5-45.3 Conflict Expiration Window - Tunable Parameter Modification

NPAC SMS shall allow the NPAC SMS Administration to modify the Conflict Expiration Window tunable parameter

R5-45.4 Conflict Subscription Version - Set to Cancel

NPAC SMS shall set the status of the Subscription Version to cancel after a Subscription Version has been in conflict for a Conflict Expiration Window tunable parameter number of calendar days

R5-45.5 Conflict Subscription Version - Set Cancellation Date Timestamp

NPAC SMS shall set a Subscription Version cancellation date timestamp to the current time upon setting a conflict Subscription Version to cancel

R5-45.6 Conflict Subscription Version - Inform Service Providers of Cancel Status

NPAC SMS shall notify both Service Providers after a Subscription Version status is set to cancel from conflict

5.1.2.2.3.2 Removing a Subscription Version from Conflict

R5-46 Conflict Resolution Subscription Version - Version Identification

NPAC SMS shall require the following data from the NPAC personnel user, new, or old Service Provider to identify the Subscription Version to be set from conflict to pending:

Ported Telephone Number, (or a specified range of numbers)

or

Subscription Version ID

R5-47 Conflict Resolution Subscription Version - Invalid Status Notification

NPAC SMS shall send an error message to the originating user if the Subscription Version status is not in conflict upon attempting to set the Subscription Version to pending

R5-50.1 Conflict Resolution Subscription Version - Set Status

NPAC SMS shall set the version status to pending if the Subscription Version is in conflict upon a request from NPAC personnel, new, or old service providers to set a Subscription Version to pending

R5-50.2 Conflict Resolution Subscription Version - Status Message

NPAC SMS shall send an appropriate message to the originating user indicating successful completion of the process to set a subscription to pending

Subscription Management

RR5-12.1 Conflict Resolution Subscription Version - Inform Both Service Providers of Pending Status

NPAC SMS shall inform both Service Providers when the status of a Subscription Version is set to pending for an Inter-Service Provider port

RR5-12.3 Conflict Resolution New Service Provider Restriction Tunable Parameter

NPAC SMS shall provide long and short Conflict Resolution New Service Provider Restriction tunable parameters which are defined as a number of business hours after the subscription version is initially put into conflict that the NPAC SMS will prevent it from being removed from conflict by the New Service Provider

NOTE: In the case where a subscription version is put into conflict (status is conflict), then cancelled (status is cancel-pending), then cancel un-do (status is returned to conflict), the number of business hours is based on when the subscription version initially went into conflict, not when it is returned back to conflict

RR5-12.4 Long Conflict Resolution New Service Provider Restriction - Tunable Parameter Default

NPAC SMS shall default the long Conflict Resolution New Service Provider Restriction tunable parameter to 6 business hours

RR5-12.5 Conflict Resolution New Service Provider Restriction Tunable Parameter Modification

NPAC SMS shall allow the NPAC SMS Administration to modify the long and short Conflict Resolution New Service Provider Restriction tunable parameters

RR5-12.6 Short Conflict Resolution New Service Provider Restriction - Tunable Parameter Default

NPAC SMS shall default the short Conflict Resolution New Service Provider Restriction tunable parameter to 6 business hours

RR5-14 Conflict Resolution Acknowledgment - Update Conflict Resolution Date and Time Stamp

NPAC SMS shall update the conflict resolution date and time stamp with the current date and time and set the old Service Provider Authorization flag to true when conflict is resolved

RR5-137 Conflict Resolution Subscription Version – Restriction for Cause Code Values

NPAC SMS shall restrict the resolution of a Subscription Version with a status of conflict and a cause code value of 50 or 51, to only allow resolution by the Old Service Provider (previously NANC 375, Req 1)

RR5-138 Conflict Resolution Subscription Version –Conflict Resolution New Service Provider Restriction Tunable Application

NPAC SMS shall apply the Conflict Resolution New Service Provider Restriction Tunable only for a Subscription Version with a status of conflict and a cause code value NOT EQUAL TO 50 or 51 (previously NANC 375, Req 2)

RR5-139 Conflict Resolution Subscription Version – Restricted Cause Code Notification

NPAC SMS shall send an error message to the New Service Provider if the Subscription Version status is conflict AND the cause code value is 50 or 51, upon attempting to set the Subscription Version to pending (previously NANC 375, Req 3)

Subscription Management

RR5-168 Regional Prevent Conflict Resolution 50/51 Tunable

NPAC SMS shall provide a Regional Prevent Conflict Resolution 50/51 tunable parameter, which is defined as an indicator on whether or not the prevention of conflict resolution for cause codes 50 or 51 by the New Service Provider is supported by the NPAC SMS for a particular NPAC Region (previously NANC 375, Req 10)

RR5-169 Regional Prevent Conflict Resolution 50/51 Tunable Default

NPAC SMS shall default the Regional Prevent Conflict Resolution 50/51 tunable parameter to TRUE (previously NANC 375, Req 11)

RR5-170 Regional Prevent Conflict Resolution 50/51 Tunable Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Regional Prevent Conflict Resolution 50/51 tunable parameter (previously NANC 375, Req 12)

5.1.2.2.4 Subscription Version Activation

This section provides the requirements for the Subscription Version Activation functionality, which is executed upon the NPAC personnel or SOA-to-NPAC SMS interface user requesting to activate a Subscription Version. Requirements related to activation are contained in requirement R5-23.

R5-51.1 Activate Subscription Version - Version Identification

NPAC SMS shall require the following data from the NPAC personnel or new service provider to identify the Subscription Version to be activated:

Ported Telephone Number (or a specified range of numbers)
or
Subscription Version ID

R5-51.2 Activate Subscription Version - Broadcast Complete Date and Time Stamp

NPAC SMS shall record the current date and time as the Activation Broadcast Complete Date and Time Stamp, as soon as one Local SMS has successfully acknowledged activating the new Subscription Version.

RR5-21 Activate “porting to original” Subscription Version

NPAC SMS shall proceed with the “immediate” disconnect processing when a “porting to original” Subscription Version is activated.

RR5-22 Activate Subscription Version - Set Activation Received Timestamp

NPAC SMS shall set the Activation Received timestamp to the current date and time upon receiving a Subscription Version activation request.

R5-52 Activate Subscription Version - Invalid Status Notification

NPAC SMS shall send an error message to the originating user if the version status is not pending upon Subscription Version activation.

R5-53.1 Activate Subscription Version - Validation

NPAC SMS shall verify that a Subscription Version is in a valid pending state by checking that a new Service Provider time stamp exists and that the effective date of the NPA-NXX has been reached.

Subscription Management

R5-53.2 Activate Subscription Version Validation Error Message

NPAC SMS shall send an error message to the originating user if the Subscription validation fails

R5-53.3 Activate Subscription Version - Validate Due Date

NPAC SMS shall verify that a pending Subscription Version is eligible for activation by ensuring that the new Service Provider due date is less than or equal to the current date

RR5-209 Activate “Intra-Service Provider Port” Subscription Version – Service Provider Tunable Value of TRUE for Pseudo-LRN Request

NPAC SMS shall accept a Subscription Version Activate request for a pseudo-LRN record from a Service Provider SOA only when the NPAC Customer SOA Pseudo-LRN Indicator is set to TRUE (previously NANC 442, Req 77)

R5-55 Activate Subscription Version - Local SMS Identification

NPAC SMS shall determine which Local SMSs to send the Subscription Version to by identifying all Local SMS that are accepting Subscription Version data downloads for the given NPA-NXX

R5-57.1 Activate Subscription Version - Send to Local SMSs

NPAC SMS shall send the activated Subscription Version for an activated Inter or Intra-Service Provider port via the NPAC SMS-to-Local SMS Interface to the Local SMSs

RR5-210 Activate Subscription Version - Local SMS Identification – Pseudo-LRN

NPAC SMS shall send a Subscription Version Activate to all Local SMSs, based on the NPAC Customer LSMS Pseudo-LRN Indicator set to TRUE and the Pseudo-LRN Accepted SPID List, that are accepting Subscription Version data downloads of pseudo-LRN data from the SPID creating the pseudo-LRN record (previously NANC 442, Req 29)

R5-57.2 Activate Subscription Version - Set to Sending

NPAC SMS shall set the subscription status to sending upon sending the activated Subscription Version to the Local SMSs

R5-57.3 Activate Subscription Version - Date and Time Stamp

NPAC SMS shall record the current date and time as the broadcast date and time stamp upon initiating sending the activated subscription to the Local SMSs

R5-58.1 Local SMS Activation message logging

NPAC SMS shall log the activation responses resulting from the activation requests sent to the Local SMSs

R5-58.2 Local SMS Activation Log Retention Period - Tunable Parameter

NPAC SMS shall provide a Local SMS Activation Log Retention Period tunable parameter which is defined as the number of calendar days Local SMS activation responses will remain in the log

Subscription Management

R5-58.3 Local SMS Activation Log Retention Period - Tunable Parameter Modification

NPAC SMS shall allow the NPAC SMS Administrator to modify the Local SMS Activation Log Retention Period tunable parameter

R5-58.4 Local SMS Activation Log Retention Period - Tunable Parameter Default

NPAC SMS shall default the Local SMS Activation Log Retention Period tunable parameter to 90 calendar days

R5-58.5 Local SMS Activation Message Log - Viewing

NPAC SMS shall allow NPAC personnel to view the Local SMS Activation Message log

R5-59.1 Activate Subscription Version - Set Status of Current to Active

NPAC SMS shall, upon receiving successful activation acknowledgment from all involved Local SMSs, set the sending Subscription Version status to active

R5-59.2 Activate Subscription Version - Set Status of Previous to Old

NPAC SMS shall upon receiving successful activation acknowledgment from any involved Local SMSs, set the previous active Subscription Version status to old

R5-60.1 Subscription Activation Retry Attempts - Tunable Parameter

NPAC SMS shall provide a Subscription Activation Retry Attempts tunable parameter which defines the number of times a new Subscription Version will be sent to a Local SMS which has not acknowledged receipt of the activation request

R5-60.2 Subscription Activation Retry Interval - Tunable Parameter

NPAC SMS shall provide a Subscription Activation Retry Interval tunable parameter, which defines the delay between sending new Subscription Versions to a Local SMS that has not acknowledged receipt of the activation request

R5-60.3 Subscription Activation Retry Attempts - Tunable Parameter Modification

NPAC SMS shall allow the NPAC SMS Administrator to modify the Subscription Activation Retry Attempts tunable parameter

R5-60.4 Subscription Activation Retry Interval - Tunable Parameter Modification

NPAC SMS shall allow the NPAC SMS Administrator to modify the Subscription Activation Retry Interval tunable parameter

R5-60.5 Subscription Activation Retry Attempts - Tunable Parameter Default

NPAC SMS shall default the Subscription Activation Retry Attempts tunable parameter to 3 times

R5-60.6 Subscription Activation Retry Interval - Tunable Parameter Default

NPAC SMS shall default the Subscription Activation Retry Interval tunable parameter to 2 minutes

Subscription Management

R5-60.7 Subscription Version Activation Failure Retry

NPAC SMS shall resend the activated Subscription Version a Subscription Activation Retry Attempts tunable parameter number of times to a Local SMS that has not acknowledged the receipt of the activation request once the Subscription Activation Retry Interval tunable parameter expires

R5-60.8 Subscription Version Activation Failure - After Retries

NPAC SMS shall consider the Subscription Version activation for a given Local SMS failed once the applicable Activation Retry tunable parameter number of retries has been exhausted for that Local SMS

R5-60.9 Subscription Version Activation Failure - Status Sending

NPAC SMS shall retain the status for the Subscription Version being activated as sending until the Subscription Version retry period expires for all Local SMSs, or until all Local SMSs have acknowledged the activation

R5-60.10 Subscription Version Activation Failure - Local SMS Identification

NPAC SMS shall notify the NPAC SMS Administrator of all Local SMSs where new activation failed, once each Local SMS has successfully responded or failed to respond during the activation retry period

R5-60.11 Subscription Version Activation Failure - Set Status to Partial Failure

NPAC SMS shall set the Subscription Version status to partial failure if the activation resulting from an subscription version activation request failed in one or more, but not all, of the Local SMSs

R5-60.12 Subscription Version Partial Activation Failure - Set Status of Previous to Old

NPAC SMS shall set the status of a previous active version to old when a Subscription Version activation succeeds for at least one of the Local SMSs

R5-61.1 Subscription Version Activation - Set Status to Failure

NPAC SMS shall set the status of the Subscription Version to failed if the Subscription Version fails activation resulting from a subscription version activation request in all the Local SMSs to which it was sent

R5-61.2 Subscription Version Activation Subscription Version - Failure Notification

NPAC SMS shall notify the NPAC System Administrator when a Subscription Version fails activation at all of the Local SMSs

R5-61.3 Subscription Version Activation - Resend to Failed Local SMSs

NPAC SMS shall provide NPAC SMS personnel with the functionality to re-send activate Subscription Version requests to all failed Local SMSs

RR5-22.1 Subscription Version Activation - Failed Local SMS Notification - Both Service Providers

NPAC SMS shall send a list to the Old and New Service Providers of all Local SMSs that failed activation when a Subscription Version is set to failed or partial failure subsequent to Subscription Version activation for an Inter-Service Provider port

Subscription Management

RR5-22.2 Subscription Version Activation - Failed Local SMS Notification - Current Service Provider

NPAC SMS shall send a list to the current Service Provider of all Local SMSs that failed activation when a Subscription Version is set to failed or partial failure subsequent to Subscription Version activation for an Intra-Service Provider port

RR5-60 Activate Intra-Service Provider Port – After NPA-NXX-X Creation and Prior to the Existence of the Block

NPAC SMS shall allow NPAC personnel, a Service Provider SOA via the SOA-to-NPAC SMS Interface, or Service Provider via the NPAC SOA Low-tech Interface, to activate intra-service provider ports for a TN within the 1K Block, where there is no active Subscription Version in the NPAC SMS (Previously SV-200)

RR5-219 Activate Subscription Version - Pending SV with no underlying Pooled or Ported SV

NPAC SMS shall allow NPAC personnel, a Service Provider SOA via the SOA-to-NPAC SMS Interface, or Service Provider via the NPAC SOA Low-tech Interface, to activate an inter-service provider port or intra-service provider port for a TN within the 1K Block, without an underlying pooled or ported Subscription Version (previously NANC 446, Req new1)

Note: This requirement allows the activate of a pending port (regular or PTO) within a 1K Block, regardless of the status of the Number Pool Block (“pending”, sending, failed, partial failure, active with a failed SP list)

RR5-211 Activate “Intra-Service Provider Port” Subscription Version – Send Notification of Activation of Pseudo-LRN Record

NPAC SMS shall send a notification to the current Service Provider when a Subscription Version is set to active/partial failure/failed upon activation of a Subscription Version for an Intra-Service Provider port of a pseudo-LRN record only if the NPAC Customer SOA Pseudo-LRN Indicator is set to TRUE and the NPAC Customer SOA Pseudo-LRN Notification Indicator is set to TRUE (previously NANC 442, Req 31)

RR5-61 Activate Port-to-Original Subscription Version – Broadcast of Subscription Data Creation

DELETED

RR5-62 Activate Port-to-Original Subscription Version – Broadcast of Subscription Data Deletion

The NPAC SMS shall broadcast a Subscription Version Delete to a Local SMS, upon activating a port-to-original Subscription Version, where the TN is within the range of a 1K Block, once the Block exists in the NPAC SMS (Previously SV-220)

RR5-171 Activate Subscription Version - Send SV Type Data to Local SMSs

NPAC SMS shall, for a Service Provider that supports SV Type, send the SV Type attribute for an activated Inter or Intra-Service Provider Subscription Version port via the NPAC SMS-to-Local SMS Interface to the Local SMSs (previously NANC 399, Req 13)

RR5-172 Activate Subscription Version - Send Alternative SPID to Local SMSs

NPAC SMS shall, for a Service Provider that supports Alternative SPID, send the Alternative SPID attribute for an activated Inter or Intra-Service Provider Subscription Version port via the NPAC SMS-to-Local SMS Interface to the Local SMSs (previously NANC 399, Req 14)

Subscription Management

RR5-190 Activate Subscription Version - Send Last Alternative SPID to Local SMSs

NPAC SMS shall, for a Service Provider that supports Last Alternative SPID, send the Last Alternative SPID attribute for an activated Inter or Intra-Service Provider Subscription Version port via the NPAC SMS-to-Local SMS Interface to the Local SMSs (previously NANC 438, Req 7)

RR5-191 Activate Subscription Version - Send Alt-End User Location Value to Local SMSs

NPAC SMS shall, for a Service Provider that supports Alt-End User Location Value, send the Alt-End User Location Value attribute for an activated Inter or Intra-Service Provider Subscription Version port via the NPAC SMS-to-Local SMS Interface to the Local SMSs (previously NANC 436, Req 8)

RR5-192 Activate Subscription Version - Send Alt-End User Location Type to Local SMSs

NPAC SMS shall, for a Service Provider that supports Alt-End User Location Type, send the Alt-End User Location Type attribute for an activated Inter or Intra-Service Provider Subscription Version port via the NPAC SMS-to-Local SMS Interface to the Local SMSs (previously NANC 436, Req 8 1)

RR5-193 Activate Subscription Version - Send Alt-Billing ID to Local SMSs

NPAC SMS shall, for a Service Provider that supports Alt- Billing ID, send the Alt Billing ID attribute for an activated Inter or Intra-Service Provider Subscription Version port via the NPAC SMS-to-Local SMS Interface to the Local SMSs (previously NANC 436, Req 8 2)

RR5-194 Activate Subscription Version - Send Voice URI to Local SMSs

NPAC SMS shall, for a Service Provider that supports Voice URI, send the Voice URI attribute for an activated Inter or Intra-Service Provider Subscription Version port via the NPAC SMS-to-Local SMS Interface to the Local SMSs (previously NANC 429, Req 7)

RR5-195 Activate Subscription Version - Send MMS URI to Local SMSs

NPAC SMS shall, for a Service Provider that supports MMS URI, send the MMS URI attribute for an activated Inter or Intra-Service Provider Subscription Version port via the NPAC SMS-to-Local SMS Interface to the Local SMSs (previously NANC 430, Req 7)

RR5-196 Activate Subscription Version - Send SMS URI to Local SMSs

NPAC SMS shall, for a Service Provider that supports SMS URI, send the SMS URI attribute for an activated Inter or Intra-Service Provider Subscription Version port via the NPAC SMS-to-Local SMS Interface to the Local SMSs (previously NANC 435, Req 7)

5.1.2.2.5 Subscription Version Disconnect

This section provides the requirements for the Subscription Version Disconnect functionality, which is executed upon the NPAC personnel or SOA-to-NPAC SMS interface user requesting to have a Subscription Version disconnected

R5-62 Disconnect Subscription Version - Version Identification

NPAC SMS shall receive the following data from the NPAC personnel or current Service Provider to identify an active Subscription Version to be disconnected:

Ported Telephone Numbers (or a specified range of numbers)
or